



<b>Title</b>	<b>Effectiveness and Cost Effectiveness of Salicylic Acid and Cryotherapy for Cutaneous Warts. An Economic Decision Model</b>
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<b>Reference</b>	Health Technol Assess 2006;10(25). July 2006. <a href="http://www.hta.ac.uk/execsumm/summ1025.htm">www.hta.ac.uk/execsumm/summ1025.htm</a>

## Aim

To estimate the costs of common treatments for cutaneous warts, and the health benefits and risks associated with these treatments; to create an economic decision model to evaluate the cost effectiveness of the treatments; and to comment on whether a randomized controlled trial (RCT) is needed, feasible, and cost effective – and if so, its size and design.

## Conclusions and results

Many patients use over-the-counter (OTC) treatments prior to seeing a GP. The most commonly used OTC preparation was salicylic acid (SA), although OTC cryotherapy (Wartner®) is increasingly common. The economic model also included duct tape (Gaffa tape) since a recent RCT of cryotherapy vs duct tape suggested that duct tape might have treatment benefits.

The economic model suggests that the 3 most cost-effective options for treating warts (compared to spontaneous resolution) are duct tape, OTC cryotherapy, and OTC salicylic acid. However, evidence supporting the first two is limited. The model estimates, within a range of uncertainty, incremental cost-effectiveness ratios for these treatments of 0.22, 0.76, and 1.12 respectively.

Of treatments prescribed by a GP, the incremental cost-effectiveness ratios were 2.20 for salicylic acid, or from 1.95 to 7.06 for cryotherapy (depending on frequency of application and mode of delivery). The cost effectiveness of cryotherapy delivered by a nurse could be comparable to SA prescribed by a GP under certain circumstances.

## Recommendations

Cryotherapy by a physician in primary care is an expensive way to treat warts. Options such as GP-prescribed SA and nurse-led cryotherapy clinics are more cost effective, but still expensive compared to self-treatment. Since most cutaneous warts are minor and spontaneously resolve in time, a shift toward self-treatment may be warranted. Although duct tape and OTC cryotherapy appear promising self-treatment options, more research

is required to confirm the efficacy of these methods. A public awareness campaign may be useful to educate patients about the self-limiting nature of warts and the OTC treatment options available.

## Methods

Various primary and secondary data collection methods were used to develop an economic decision model. Primary data collection involved focus groups, structured interviews with patients and health professionals, and observation of practice. These methods aimed to capture the common care pathways and identify important issues. The results were used in designing a postal survey sent to 723 patients who had recently visited their GP for treatment of warts. The data were used to estimate the effectiveness of wart treatments in primary care. These estimates were compared with outcomes reported in the Cochrane review, which were largely obtained from RCTs in secondary care.

Secondary data used in the decision model came from several sources, including the recently updated Cochrane systematic review and published cost and prescribing data. Combining primary and secondary data sources has led to a model that reflects actual practice to the extent possible.

## Further research/reviews required

- Head-to-head RCT comparing SA to nurse-led cryotherapy (to provide efficacy data for these two most common treatments and to measure the cost effectiveness of nurse-led clinics).
- Trial comparing OTC salicylic acid, cryotherapy (Wartner®), and duct tape (home treatment might encourage more patients to self-treat warts, reducing the burden on the NHS).