

RESEARCH & DEVELOPMENT : QUALITY

Transdermal Nicotine

- a) Whether this is a significant technical advance and whether it is likely to be developed into a saleable product for mass markets.

In its main claim the Stowic company's existing patent emphasizes a "controlled" nicotine release and thus more rapid achievement of a nicotine plateau in the plasma. This can be understood scientifically on the basis of available data. Whether, however, it is a significant advance versus existing products has to be questioned because whilst the approx. 2 hours taken to reach the maximum nicotine plateau is half the time taken with available plasters, it is still a very long time. Thus, in the case of this product - as in the case of other nicotine plasters - there is a difference in the pharmacodynamics and thus in the product's action compared with smoking.

From the technical viewpoint mass production of this product is possible.

- b) If so, does it represent a significant threat to the tobacco industry?

Apart from the fact that these products are used in therapy to break the smoking habit and even when thus applied have so far not achieved any significant success rates - no!

As the pharmacodynamics of nicotine absorption vary widely compared with smoking, e.g. a far longer time taken for absorption through the skin, far longer times needed to transport the nicotine to the central nervous system and thus to form a nicotine plateau, the rapidly achieved stimulating or soothing effect of nicotine which the smoker wants cannot be achieved. Such a product can thus not be a substitute for the cigarette.

A simple comparison: if one constructed a cigarette with the pharmacodynamics of this plaster, the full smoking satisfaction would either fail to materialize or would only be felt after roughly two hours or even longer.

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This view only emphasizes the nicotine effect; all the other attributes connected with smoking have been ignored.

c) What should be the reaction, if any, by BAT Industries?

From the scientific point of view: none.

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