

# (12) United States Patent **Djupesland**

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(54) NASAL DELIVERY

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See application file for complete search history.

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#### (57)**ABSTRACT**

A nasal delivery device for and method of delivering substance to a nasal cavity of a subject, the delivery device comprising: a nosepiece unit (20, 24) including a nosepiece (17) for fitting to a nostril of a subject and a nozzle (45) through which substance is in use delivered, preferably substantially axially to a longitudinal axis of the nosepiece, to the respective nasal cavity, wherein at least a tip element of the nosepiece has, at least in one configuration, an elongate lateral section which has a longer dimension in a first, sagittal direction than a second direction orthogonal to the sagittal direction, such that, when the nosepiece is inserted in the nasal cavity of the subject, the longer dimension of the nosepiece acts to engage lower and upper surfaces of the nasal cavity, preferably at the nasal valve, and expand the same in the sagittal plane; and a delivery unit (43, 49, 51) for delivering substance through the nozzle of the nosepiece.

## 28 Claims, 46 Drawing Sheets



