Description

Cartridge holder, drug delivery device and method for securing a cartridge in a cartridge holder

The invention concerns a cartridge holder, a drug delivery device comprising a cartridge holder and a method for securing a cartridge in a cartridge holder.

A drug delivery device is operable to deliver a drug from a cartridge, for example via a cannula. The cartridge is located in a cartridge holder which is part of the drug delivery device. A dose setting and delivery mechanism of the drug delivery device pushes a bung in the distal direction along the inner wall of the cartridge so that a dose of drug is delivered.

If the cartridge is not connected with the dose setting and delivery mechanism or the housing of the drug delivery device, the cartridge may be axially disposable with respect to the dose setting and delivery mechanism. Even a slight mobility of the cartridge may cause underdosing or overdosing of the drug.

It is an aim of the present invention to reduce the risk of underdosing or overdosing.

In one aspect, there is provided a cartridge holder having a distal end and a proximal end, the cartridge holder comprising a coupling housing portion in which a cartridge can be inserted at least partly, the coupling housing portion being configured to be coupled to a part of a drug delivery device, a fixing member being connected with the coupling housing portion, the fixing member being flexible and integrally formed with the coupling housing portion and having an inner side and an outer side, the fixing member being further movable radially inwardly with respect to the coupling housing portion to a position in which the fixing member is suitable for securing the cartridge against distal displacement of the cartridge, wherein the fixing member can be moved towards a longitudinal axis of the cartridge holder, i.e. into a space which is provided for the cartridge if it is inserted in the cartridge holder, so that the inner side abuts on the cartridge when a force impacts on the outer side.

In one aspect, there is provided a drug delivery device comprising a cartridge holder as defined above and further comprising a cartridge which is located in the cartridge holder, wherein the part of the drug delivery device is coupled with the coupling housing portion, thereby the part of the drug delivery device abuts on the fixing member so that the fixing member secures the cartridge against distal displacement.

In one aspect, there is provided a method for securing a cartridge in a cartridge holder as defined above, the method comprising: inserting the cartridge into the cartridge holder so that the cartridge is at least partly inserted in the coupling housing portion of the cartridge holder, coupling the coupling housing portion with the part of the drug delivery device, so that the fixing member moves radially inwardly towards the longitudinal axis to a position in which the fixing member secures the cartridge against distal displacement.

For this aim a cartridge holder is provided. The cartridge holder which has a distal end and a proximal end comprises a coupling housing portion in which a cartridge can be inserted at least partly. The coupling housing portion is configured to be coupled to a part of a drug delivery device. The cartridge holder further comprises a fixing member which is connected with the coupling housing portion, the fixing member being moveable radially inwardly to a position in which the fixing member is suitable for securing the cartridge against distal displacement of the cartridge.

A cartridge which is at least partly located inside the coupling housing portion of the cartridge holder is secured when the fixing member is moved inwardly, which means