

CLAIMS:

1. An auto-injector device (100) comprising:
a syringe assembly (206) comprising:
a needle (222) adapted to expel medicaments from the syringe assembly
5 (206); and
a barrel (224) adapted to hold the medicaments and to be coupled to the
needle (222), wherein a flow of medicaments is directed out of the barrel (224)
through the needle (222);
a plunger (216) positioned coaxially with respect to the barrel (224) and adapted
10 to reciprocate within the barrel (224) to expel the medicaments; and
a locking member (214) adapted to be engaged with the plunger (216) to hold the
plunger in a position with respect to the barrel (224),
wherein the position of the plunger (216) with respect to the barrel (224) is
adapted to be adjusted to vary a volume of medicaments to be expelled from the barrel
15 (224), the position of the plunger (216) is adjusted by engaging the locking member
(214) with the plunger (216) at one of a plurality of positions along a length (L) of the
plunger (216).
2. The auto-injector device (100) as claimed in claim 1 further comprising a first body
20 member (202) and a second body member (204), wherein the first body member (202)
and the second body member (204) are adapted to be coupled to each other to define a
housing (205) therein.
3. The auto-injector device (100) as claimed in any of the claims 1 and 2 further
25 comprising a Pre-filled Syringe (PFS) holder (208) adapted to hold the syringe assembly
(206) within the housing (205).
4. The auto-injector device (100) as claimed in claim 1, wherein the plunger (216) includes
an engaging portion (402), extending along the length (L) of the plunger (216), wherein
30 the locking member (214) engages at one of the plurality of positions in the engaging
portion (402) along the length (L).

5. The auto-injector device (100) as claimed in any of claims 1 further comprising a spring release arm (220) positioned at a proximal end (102) of the auto-injector device (100) and adapted to support the plunger (216) and a plunger spring (218).
- 5 6. The auto-injector device (100) as claimed in any of claims 4 and 5, wherein the locking member (214) includes locking teeth (302) adapted to be engaged with the engaging portion (402) of the plunger (216), wherein the locking member (214) is adapted to hold the spring release arm (220) in a locking position to ensure engagement of the spring release arm (220) with the plunger (216).
- 10 7. The auto-injector device (100) as claimed in claim 1 further comprising a needle guard (210) adapted to move the locking member (214) from an engaged position to a disengaged position.
- 15 8. The auto-injector device (100) as claimed in claim 7 further comprising a needle guard spring (212) adapted to be coupled to the needle guard (210), wherein the needle guard spring (212) is adapted to allow a resilient movement of the needle guard (210).
9. The auto-injector device (100) as claimed in any of claims 6 and 7, wherein:
- 20 in the engaged position, the locking teeth (302) engages with the engaging portion (402) to hold the plunger (216) in the position away from a distal end (104) of the auto-injector device (100); and
- in the disengaged position, the needle guard (210) moves the locking member (214) towards the proximal end (102) of the auto-injector device (100) to disengage the
- 25 locking teeth (302) from the engaging portion (402).
10. The auto-injector device (100) as claimed in claim 1 further comprising:
- a plunger spring (218) adapted to be compressed between a head portion of the plunger (216) and the locking member (214), wherein the plunger spring (218) is
- 30 adapted to resiliently push the plunger (216) within the barrel (224) to expel the medicaments from the barrel (224).