Claims

1. A grip accessory (600) for a manual injection device comprising a plunger (270) that comprises an unlatching element (280) configured to unlock a releasable locking mechanism (180) of the manual injection device (110), the grip accessory comprising:
a housing comprising a generally hollow body for supporting a manual injection device therein, the housing comprising:
a distal portion (630) comprising a first opening adapted to receive a manual injection device;
a proximal portion comprising a second opening through which a needle of the manual injection device is extendable, the proximal portion comprising a skin contacting
surface at a proximal end of the device;
an intermediate portion extending between the proximal and distal portions; and a guide (670) on an interior surface of the distal portion, the guide (670) adapted to guide a plunger rod of the manual injection device during delivery of an injection.

2. The grip accessory of claim 1, wherein the guide means(670) comprises at least one longitudinal rib (670) extending along an interior surface of the housing for limiting lateral movement of the unlatching element (280) of the plunger rod (270) of the manual injection device.

3. The grip accessory of claim 2, wherein the guide means comprises a plurality of longitudinal ribs.

4. The grip accessory of claim 3, (670), and optionally wherein the plurality of ribs defines a channel within the distal portion of the housing along which the plunger rod travels.

5. The grip accessory of any of claims 2, 3 or 4, and further optionally wherein the plurality of ribs comprise a curved distal face.

6. The grip accessory of claim 4 or claim 5, wherein the ribs provide a flared opening to the channel to guide an unlatching element of the plunger into the channel.

7. An injection device comprising: the grip accessory of any of claims 1 to 6; and a manual injection device (100) comprising:
a syringe body (110) having a needle (130) at its proximal end;
a syringe sheath supporting the syringe body therein;
a safety shield (150) movable relative to the syringe sheath between a retracted position, in which the needle (130) extends from the proximal end of the safety shield (150), and an extended position, in which the safety shield (150) extends over the needle (130);
a biasing element (160) for biasing the shield towards its extended position;
a releasable locking mechanism (180) for holding the syringe sheath in its retracted position against the bias of the biasing element, the releasable locking mechanism being movable from a first position in which it prevents movement of the syringe shield relative to the syringe sheath and a second position in which it does not prevent movement of the safety shield relative to the syringe sheath; and
a plunger rod (170; 270) extending from the distal end of the syringe body for delivering a dose of medicament through the needle, wherein the plunger comprises an unlocking component for moving the releasable locking mechanism from its locked position to its unlocked position as the plunger rod is moved proximally to deliver a dose of medicament.

8. The injection device of claim 7, wherein:
the releasable locking mechanism comprises at least one deflectable latching arm (181) moveable from a first position in which it causes the safety shield to be retained in its retracted position, and a second position, in which it no longer retains the safety shield in its retracted position; and
the plunger (170) comprises an unlatching element (280) configured to move the at least one flexible latch arm (181) from its first position to its second position.

9. The injection device of claim 7, wherein the unlatching element (280) comprises a flange or disk extending from the plunger rod.

10. The injection device of claim 7, 8 or 9, wherein the channel is dimensioned to receive the unlatching element (270) and prevent lateral movement of the unlatching element relative to the housing.

11. The injection device of any one of claims 7 to 10, wherein the plunger rod comprises an actuation surface (175) at its distal end for receiving a user's thumb or finger when delivering an injection and wherein the channel is dimensioned to receive the actuation surface and prevent lateral movement of the actuation surface relative to the housing.

12. A manual injection device (100) comprising:
a syringe (110) housing for holding a syringe body with a discharge nozzle;
a safety shield (150) movable between a retracted position and an extended position in which the safety shield extends over the needle (130);
a biasing device (160) for biasing the safety shield to its extended position;
a releasable locking mechanism (180) for holding the safety shield in its retracted position when in a locked position, and allowing the safety shield to move to its extended position under the influence of the biasing device when in its unlocked position; and
a plunger (170; 270) for delivering a dose of medicament through the discharge nozzle, the plunger being movable along a longitudinal axis from a distal position to a proximal position, wherein the plunger comprises:
an actuation surface (175) at the distal end of the plunger to which an actuation force can be applied for moving the plunger along the longitudinal axis to deliver the dose of medicament; and
an unlatching element (270) proximal of and spaced from the actuation surface configured to unlock the releasable locking mechanism, thereby allowing the safety shield to move to its extended position.

13. The injection device of claim 12, wherein the releasable locking mechanism (180) comprises at least one deflectable latching arm (181) moveable from a first position in which it causes the safety shield to be retained in its retracted position, and a second position, in which it no longer retains the safety shield in its retracted position; and wherein the plunger (270) is configured to move the at least one flexible latch arm from its first position to its second position when it is moved from its distal position to its proximal position.

14. The injection device of claim 12 or claim 13, wherein the unlatching element comprises an annular projection (280), extending from the body of the plunger and spaced from the actuation surface of the plunger.

15. The injection device of any one of claims 12 to 14, wherein the plunger (270) comprises a distal portion and a proximal portion, wherein:
the distal portion has a first cross-sectional diameter;
the proximal portion has a second cross-sectional diameter; and
wherein the first cross-sectional diameter is greater than the second cross-sectional diameter and wherein the distal end of the distal portion comprises the actuation surface and the proximal end of the proximal distal portion comprises the unlatching element.

16. The injection device of any one of claims 12 to 15, wherein the unlatching element comprises a curved proximal surface.

17. The injection device of any one of claims 12 to 18, wherein the grip accessory further comprises a retractable sheath, movable between an extended position in which the sheath extends over the proximal end of the discharge nozzle and a retracted position, in which the discharge needle extends from the retractable sheath.

18. The grip accessory of claim 17; and optionally wherein the retractable sheath is retractable to a position in which its proximal end does not extend from the plane defined by the skin contacting surface.

19. The injection device of any one of claims 8 to 11, wherein the unlatching element is relatively more flexible than the distal end of the grip accessory housing.