~~CLAIMS~~

~~1. A peripheral intravenous catheter assembly, comprising:~~

~~a septum, comprising:~~

~~a body having a distal end and a proximal end, wherein the distal and proximal ends of the body are sealed; and~~

~~a slot disposed within an outer surface of the body and oriented along a longitudinal axis of the body, wherein the slot comprises a distal end spaced apart from the distal end of the body, and a proximal end spaced apart from the proximal end of the body; and~~

~~an introducer needle extending through the slot.~~

~~2. The peripheral intravenous catheter assembly of claim 1, wherein the introducer needle is spaced apart from a bottom of the slot.~~

~~3. The peripheral intravenous catheter assembly of claim 1, further comprising a catheter adapter, wherein the septum is disposed within the catheter adapter, wherein an inner surface of the catheter adapter seals the slot.~~

~~4. The peripheral intravenous catheter assembly of claim 1, further comprising a septum housing, wherein the septum is at least partially disposed within the septum housing, wherein an inner surface of the septum housing seals the slot.~~

~~5. The peripheral intravenous catheter assembly of claim 1, wherein the septum is elastomeric.~~

~~6. The peripheral intravenous catheter assembly of claim 1, wherein the septum is monolithically formed as a single unit.~~

~~7. The peripheral intravenous catheter assembly of claim 1, wherein a length of the slot corresponds to a majority of a length of the body.~~

~~8. The peripheral intravenous catheter assembly of claim 1, wherein a depth of the slot is greater than half a width of the body.~~

~~9. The peripheral intravenous catheter assembly of claim 1, wherein a bevel of the introducer needle faces upward, wherein the slot faces downward.~~

~~10. The peripheral intravenous catheter assembly of claim 1, further comprising a semi-annular groove disposed within the body, wherein the semi-annular groove extends around a portion of a circumference of the body, wherein the slot extends between a first end of the semi-annular groove and a second end of the semi-annular groove.~~

~~11. The peripheral intravenous catheter assembly of claim 1, wherein the catheter adapter comprises a side port having an integrated extension tube.~~

~~12. A peripheral intravenous catheter assembly, comprising:~~

~~a catheter adapter;~~

~~a septum disposed within a lumen of the catheter adapter, comprising:~~

~~a body having a distal end and a proximal end, wherein the distal and proximal ends of the body are sealed; and~~

~~a channel disposed within the septum and oriented along a longitudinal axis of the body, the channel formed by an inner surface of the body;~~

~~a slit extending from an outer surface of the body to the channel, wherein the slit is oriented along the longitudinal axis of the body, wherein the slit is closed when the septum is disposed within the lumen of the catheter adapter, wherein the septum is monolithically formed as a single unit; and~~

~~an introducer needle extending through the channel, wherein the introducer needle is spaced apart from the inner surface of the body.~~

~~13. The peripheral intravenous catheter assembly of claim 12, wherein the septum is elastomeric.~~

~~14. The peripheral intravenous catheter assembly of claim 13, wherein the septum is molded in a bulged position with the slit open to allow formation of the channel.~~

~~15. The peripheral intravenous catheter assembly of claim 12, wherein the slit extends partially through a length of the body.~~

~~16. The peripheral intravenous catheter assembly of claim 12, wherein the slit is disposed in a middle of the body.~~

~~17. The peripheral intravenous catheter assembly of claim 12, wherein at least a portion of the channel is generally cylindrical.~~

~~18. The peripheral intravenous catheter assembly of claim 12, wherein a length of the channel corresponds to a majority of a length of the body.~~

~~19. The peripheral intravenous catheter assembly of claim 12, further comprising a semi-annular or annular groove disposed within the body, wherein the semi-annular or annular groove extends around a portion of a circumference of the body, wherein the slit extends through the semi-annular or annular groove.~~

~~20. The peripheral intravenous catheter assembly of claim 12, wherein the catheter adapter comprises a side port having an integrated extension tube.~~

CLAIMS

1. A peripheral intravenous catheter assembly, comprising:

a septum, comprising:

a body having a distal end and a proximal end, wherein the distal and proximal ends of the body are sealed; and

a slot disposed within an outer surface of the body and oriented along a longitudinal axis of the body, wherein the slot comprises a distal end spaced apart from the distal end of the body, and a proximal end spaced apart from the proximal end of the body, wherein the septum is monolithic; and

a semi-annular groove disposed within the body, wherein the semi-annular groove extends around a portion of a circumference of the body, wherein the slot extends between a first end of the semi-annular groove and a second end of the semi-annular groove; and

an introducer needle extending through the slot.

2. The peripheral intravenous catheter assembly of claim 1, wherein the introducer needle is spaced apart from a bottom of the slot.

3. The peripheral intravenous catheter assembly of claim 1, further comprising a catheter adapter, wherein the septum is disposed within the catheter adapter, wherein an inner surface of the catheter adapter seals the slot.

4. The peripheral intravenous catheter assembly of claim 1, further comprising a septum housing, wherein the septum is at least partially disposed within the septum housing, wherein an inner surface of the septum housing seals the slot.

5. The peripheral intravenous catheter assembly of claim 1, wherein the septum is elastomeric.

6. The peripheral intravenous catheter assembly of claim 1, wherein a length of the slot corresponds to a majority of a length of the body.

7. The peripheral intravenous catheter assembly of claim 1, wherein a depth of the slot is greater than half a width of the body.

8. The peripheral intravenous catheter assembly of claim 1, wherein a bevel of the introducer needle faces upward, wherein the slot faces downward.

9. The peripheral intravenous catheter assembly of claim 3, wherein the catheter adapter comprises a side port having an integrated extension tube.

10. The peripheral intravenous catheter assembly of claim 1, wherein the distal end of the slot is opposite the proximal end of the slot, wherein the slot further comprises a first sidewall and a second sidewall opposite the first sidewall, wherein the first sidewall and the second sidewall extend from the distal end of the slot to the proximal end of the slot, wherein the distal end, the proximal end, the first sidewall, and the second sidewall are monolithically formed of an elastomeric material as a single unit.

11. A peripheral intravenous catheter assembly, comprising:

a catheter adapter;

a septum, comprising:

a body having a distal end and a proximal end, wherein the distal and proximal ends of the body are sealed; and

a slot disposed within an outer surface of the body and oriented along a longitudinal axis of the body, wherein the slot comprises a distal end spaced apart from the distal end of the body, and a proximal end spaced apart from the proximal end of the body; and

an introducer needle extending through the slot; and

a semi-annular groove disposed within the body, wherein the semi-annular groove extends around a portion of a circumference of the body, wherein the slot extends between a first end of the semi-annular groove and a second end of the semi-annular groove; and

a septum housing, wherein the septum is disposed within the septum housing, the septum housing encircling the septum and sealing the slot; wherein the septum housing is disposed within the catheter adapter.

12. The peripheral intravenous catheter assembly of claim 11, wherein the introducer needle is spaced apart from a bottom of the slot.

13. The peripheral intravenous catheter assembly of claim 11, wherein a bevel of the introducer needle faces upward, wherein the slot faces downward.

14. The peripheral intravenous catheter assembly of claim 11, wherein the septum is elastomeric.

15. The peripheral intravenous catheter assembly of claim 11, wherein a length of the slot corresponds to a majority of a length of the body.

16. The peripheral intravenous catheter assembly of claim 11, wherein a depth of the slot is greater than half a width of the body.

17. The peripheral intravenous catheter assembly of claim 11, wherein the catheter adapter comprises a side port having an integrated extension tube.