CLAIMS

1. A catheter system, comprising:

a luer adapter, comprising an outer surface having a recess, wherein the luer adapter is coupled to a catheter adapter via extension tubing;

a flow control plug, comprising:

a proximal end having a filter element permeable to air and not to blood; and

a distal end having a cylinder and a taper-shaped luer tip spaced apart from the cylinder, wherein an inner surface of the cylinder includes a protrusion engaged in a snap-fit with the recess.

2. The catheter system of claim 1, wherein the cylinder comprises a plurality of slots forming a plurality of arms disposed between the plurality of slots, wherein an inner surface of an arm of the plurality of arms includes the protrusion.

3. The catheter system of claim 2, wherein the plurality of slots extend through the cylinder.

4. The catheter system of claim 2, wherein the plurality of slots includes a first slot and a second slot, wherein the plurality of arms includes a first arm and a second arm, wherein the first slot and the second slot are each disposed between the first arm and the second arm, wherein an inner surface of the first arm includes the protrusion, wherein an inner surface of the second arm includes another protrusion, wherein the other protrusion is engaged in a snap-fit with the recess or with another recess of the outer surface of the luer adapter.

5. The catheter system of claim 2, wherein an outer surface of at least one of the plurality of arms includes a grip element.

6. The catheter system of claim 7, wherein the grip element includes a rib oriented longitudinally with respect to the flow control plug.

~~7. The catheter system of claim 1, wherein an outer surface of the proximal end includes a plurality of grip elements.~~

~~8. The catheter system of claim 7, wherein the plurality of grip elements includes ribs oriented longitudinally with respect to the flow control plug.~~

~~9. The catheter system of claim 1, wherein the distal end further comprises a stepped surface, wherein the distal end extends outwardly from the proximal end to form the stepped surface.~~

~~10. The catheter system of claim 9, wherein the cylinder comprises a plurality of arms and a plurality of slots disposed between the plurality of arms, wherein the plurality of slots extend through the stepped surface.~~

~~11. The catheter system of claim 1, wherein the luer adapter is a Y-adapter.~~

~~12. A catheter system, comprising:~~

~~a luer adapter comprising an outer surface having threading, wherein the luer adapter is coupled to a catheter adapter via extension tubing;~~

~~a flow control plug, comprising:~~

~~a proximal end having a filter element permeable to air and not to blood; and~~

~~a distal end having a cylinder and a taper-shaped luer tip spaced apart from the cylinder, wherein an inner surface of the cylinder includes corresponding threading, wherein the distal end further comprises a stepped surface, wherein the distal end extends outwardly from the proximal end to form the stepped surface.~~

~~13. The catheter system of claim 12, wherein an outer surface of the cylinder includes a grip element.~~

~~14. The catheter system of claim 13, wherein the grip element includes a rib oriented longitudinally with respect to the flow control plug.~~

~~15. The catheter system of claim 12, wherein an outer surface of the proximal end includes a plurality of grip elements.~~

~~16. The catheter system of claim 15, wherein the plurality of grip elements includes ribs oriented longitudinally with respect to the flow control plug.~~

~~17. The catheter system of claim 12, wherein an outer surface of the cylinder includes a plurality of ribs oriented longitudinally with respect to the flow control plug, wherein an outer surface of the proximal end includes a plurality of other ribs oriented longitudinally with respect to the flow control plug.~~

~~18. The catheter system of claim 17, wherein the cylinder includes a first number of the ribs and the outer surface of the proximal end includes a second number of the other ribs, wherein the second number is greater than the first number.~~

~~19. The catheter system of claim 17, wherein a width of each of the plurality of ribs is greater than a width of each of the plurality of other ribs.~~

~~20. A method of securing a flow control plug to a catheter system for shipment:~~

~~providing a catheter system, wherein the catheter system comprises:~~

~~a catheter adapter and a luer adapter coupled to the catheter adapter via extension tubing, wherein the luer adapter includes an outer surface having threading or a recess;~~

~~coupling a flow control plug to the luer adapter of a catheter system before shipping the catheter system to a destination, wherein the flow control plug comprises:~~

~~a proximal end having a filter element permeable to air and not to blood; and~~

~~a distal end having a cylinder and a taper-shaped luer tip spaced apart from the cylinder, wherein an inner surface of the cylinder includes corresponding threading or a protrusion, wherein coupling the flow control plug to the luer adapter of the catheter system before shipping the catheter system to the destination comprises engaging the recess with the protrusion in a snap-fit or mating the threading to the corresponding threading.~~

CLAIMS

1. A catheter system, comprising:

a luer adapter, comprising an outer surface having a recess, wherein the luer adapter is coupled to a catheter adapter via extension tubing;

a flow control plug, comprising:

a proximal end having a filter element permeable to air and not to blood; and

a distal end having a cylinder and a taper-shaped luer tip spaced apart from the cylinder, wherein an inner surface of the cylinder includes a protrusion engaged in a snap-fit with the recess, wherein an outer surface of the distal end comprises a plurality of first ribs and an outer surface of the proximal end comprises a plurality of second ribs, wherein the plurality of first ribs and the plurality of second ribs are oriented longitudinally with respect to the flow control plug, wherein the outer surface of the proximal end has more second ribs than the outer surface of the distal end has first ribs, and wherein the distal end further comprises a stepped surface, wherein the distal end extends outwardly from the proximal end to form the stepped surface, wherein the stepped surface is annular.

2. The catheter system of claim 1, wherein the luer adapter is a Y-adapter.

3. catheter system of claim 1, wherein the plurality of first ribs extend from the stepped surface and along an entire length of the cylinder.

4. The catheter system of claim 1, wherein a width of each of the plurality of first ribs is greater than a width of each of the plurality of second ribs.

5. The catheter system of claim 1, wherein the plurality of first ribs comprises a first rib and a second rib that opposes the first rib.