

CLAIMS

We claim:

1. A catheter system (10), comprising:
 - a catheter adapter (22) comprising a proximal end (32), a distal end (30), and a lumen extending along a longitudinal axis (44) through the proximal end and the distal end;
 - a wing (24) extending outwardly from the catheter adapter, wherein the wing comprises a groove (48) or slot (40);
 - a catheter (18) extending distally from the catheter adapter;
 - a needle hub (12);
 - a paddle (14) extending outwardly from the needle hub, wherein the paddle comprises an extension (46), wherein the extension is disposed within the groove or the slot to ~~reduce axial~~ prevent movement of the wing relative to the paddle in a distal or proximal direction parallel to the longitudinal axis between the catheter adapter and the needle hub; and
 - a cannula (16) extending through the catheter adapter and the catheter, wherein the cannula comprises a proximal end and a distal end, wherein the proximal end of the cannula is secured within the needle hub.
2. The catheter system of claim 1, wherein a bottom (38) of the wing is smooth.
3. The catheter system of claim 1, wherein the extension is configured to move laterally within the groove or the slot.
4. The catheter system of claim 1, wherein the groove or the slot is generally perpendicular to ~~a~~ the longitudinal axis ~~of the catheter system.~~
5. The catheter system of claim 1, wherein the extension comprises a ball shape, wherein the wing comprises the groove, wherein the groove comprises a socket.
6. The catheter system of claim 1, wherein the wing is constructed of a flexible material such that the wing may be pulled away from the paddle to remove the extension from the groove or the slot.

7. The catheter system of claim 1, wherein the extension comprises a rib (52), wherein the wing comprises ~~a~~the groove, wherein the groove is elongated to generally match a shape of the rib.

8. The catheter system of claim 1, wherein the extension is part of a chevron pattern surface (54), wherein the wing comprises a corresponding chevron pattern (56) that comprises the groove.

9. ~~—A catheter system, comprising:~~

~~a catheter adapter comprising a proximal end, a distal end, and a lumen extending through the proximal end and the distal end;~~

~~a wing extending outwardly from the catheter adapter;~~

~~a catheter extending distally from the catheter adapter;~~

~~a needle hub;~~

~~a paddle extending outwardly from the needle hub, wherein the paddle comprises a shape to reduce distal movement of the catheter adapter with respect to the needle hub;~~

~~a cannula extending through the catheter adapter and the catheter, wherein the cannula comprises a proximal end and a distal end, wherein the proximal end of the cannula is secured within the needle hub.~~

10. ~~—The catheter system of claim 9, wherein the shape comprises a rough texture, wherein a proximal portion of the paddle comprises the rough texture, wherein a distal portion of the paddle is smooth.~~

11. ~~—The catheter system of claim 9, wherein a portion of the paddle sits underneath the wing, wherein the shape comprises an arm configured to move independently of the portion of the paddle that sits underneath the wing, wherein in response to the arm being in a first position, the arm contacts a distal end of the wing and reduces distal movement of the wing, wherein in~~

~~response to the arm being in a second position, the arm is disposed below the wing and the wing is configured to move distally.~~

9.12. The catheter system of claim 91, wherein the paddle ~~shape~~ comprises a raised distal edge (68) configured to reduce distal movement of the wing.

10.13. The catheter system of claim 912, wherein the paddle comprises a raised proximal ~~end~~ edge, wherein an edge of the paddle between the raised distal edge and the raised proximal edge is not raised.

11.14. The catheter system of claim 1 9, wherein the wing comprises a recess (79), wherein the paddle ~~shape~~ comprises a cantilever element (78) movable between a first position within the recess and a second position outside of the recess.

12.15. The catheter system of claim 1 9, wherein the ~~shape~~ paddle ~~may include~~ includes a bend forming an upper portion (124) and a lower portion (126) of the paddle, wherein the wing is disposed between the upper portion and the lower portion of the paddle, wherein in response to pinching the upper portion and the lower portion together, movement of the wing is reduced with respect to the paddle.

~~16. — A catheter system, comprising:~~

~~a catheter adapter comprising a proximal end, a distal end, and a lumen extending through the proximal end and the distal end;~~

~~a first wing extending outwardly from the catheter adapter;~~

~~a second wing extending outwardly from the catheter adapter and movable between an up position and a down position, wherein the second wing is smaller than the first wing and comprises a protrusion;~~

~~a catheter extending distally from the catheter adapter;~~

~~a needle hub;~~

~~a paddle extending outwardly from the needle hub and disposed between the first wing and the second wing, wherein the paddle comprises a groove, wherein in response to the second wing being disposed in the down position, the protrusion is disposed in the groove, wherein in response to the second wing being disposed in the up position, the protrusion is not disposed within the groove;~~

~~a cannula extending through the catheter adapter and the catheter, wherein the cannula comprises a proximal end and a distal end, wherein the proximal end of the cannula is secured within the needle hub.~~

13.17. The catheter system of claim ~~16~~ 1, wherein a distal end of the paddle comprises a concave curved surface (134), wherein the concave curved surface faces distally.

14.18. The catheter system of claim 13~~17~~, wherein a side of the catheter adapter comprises another concave curved surface (136), wherein the concave curved surface and the other concave curved surface are configured to be gripped in a ported grip.

15.19. The catheter system of claim 1 ~~16~~, wherein the catheter adapter comprises a protrusion (84) configured to contact the paddle and prevent rotation of the needle hub with respect to the catheter adapter.

16.20. The catheter system of claim 13~~17~~, wherein the paddle comprises a groove (50), wherein the catheter adapter comprises a rib (52) slidable within the groove.