

Claims:

1. A catheter system, comprising:
a catheter adapter, comprising a distal end, a proximal end, and a lumen extending therebetween;
a catheter extending distally from the distal end of the catheter adapter; and
an introducer needle having a wall defining a needle lumen of the introducer needle, a first notch formed through the wall, and a second notch formed through the wall, wherein the second notch is proximal to the first notch, wherein the introducer needle extends through the catheter and beyond a distal end of the catheter when the introducer needle is in an insertion position for insertion into a patient, wherein a portion of the wall between the first notch and the second notch is crimped such that fluid is prevented from flowing in the needle lumen between the first notch and the second notch.
2. The catheter system of claim 1, wherein the first notch is disposed within the catheter when the introducer needle is in the insertion position, wherein at least a portion of the catheter is transparent.
3. The catheter system of claim 1, further comprising a flash chamber in fluid communication with the needle lumen, wherein the flash chamber includes a gas permeable vent.
4. The catheter system of claim 1, wherein the catheter adapter further comprises a gas permeable vent, wherein the gas permeable vent is selectively opened and closed.
5. The catheter system of claim 1, further comprising a fluid pathway, extending from the first notch to the second notch between an outer surface of the introducer needle and an inner surface of a wall of the catheter.
6. The catheter system of claim 1, wherein a cross-section taken through the catheter system perpendicular to a central axis of the catheter system and between the first notch and the second

notch includes a needle lumen area and another area between an outer surface of the introducer needle and an inner surface of a wall of the catheter, wherein the other area is greater than the needle lumen area.

7. The catheter system of claim 1, further comprising a seal disposed within the lumen of the catheter adapter, wherein the introducer needle is rotatable between a priming position and the insertion position, wherein when the introducer needle is in the priming position, the seal covers the second notch and seals the second notch, wherein when the introducer needle is in the insertion position, the seal does not cover the second notch and fluid may flow through the second notch.

8. The catheter system of claim 1, further comprising a seal constructed of a dissolvable material, wherein the seal is disposed on top of the second notch to seal the second notch.

9. The catheter system of claim 1, wherein the second notch is disposed within the catheter when the needle is in the insertion position.

10. The catheter system of claim 1, wherein the second notch is disposed within the lumen of the catheter adapter when the introducer needle is in the insertion position.

11. An introducer needle, comprising:

- a proximal end, a distal tip, and a needle lumen extending therebetween;

- a wall defining the needle lumen;

- a first notch formed through the wall; and

- a second notch formed through the wall, wherein the second notch is proximal to the first

notch, wherein a portion of the wall between the first notch and the second notch is crimped such that fluid is prevented from flowing in the needle lumen between the first notch and the second notch.

12. A catheter system, comprising:

- a catheter adapter, comprising a distal end, a proximal end, and a lumen extending therebetween;

- a catheter extending distally from the distal end of the catheter adapter; and

a blood control septum disposed within the lumen and dividing the lumen into a proximal chamber and a distal chamber; and

an introducer needle having a wall defining a needle lumen of the introducer needle, a first notch formed through the wall, and a second notch formed through the wall, wherein the second notch is proximal to the first notch, wherein the introducer needle extends through the catheter and beyond a distal end of the catheter when the introducer needle is in an insertion position for insertion into a patient, wherein the first notch is disposed within the catheter when the introducer needle is in the insertion position, wherein at least a portion of the catheter is transparent, wherein the second notch is disposed distal to the blood control septum when the introducer needle is in the insertion position, wherein a portion of the wall between the first notch and the second notch is crimped such that fluid is prevented from flowing in the needle lumen between the first notch and the second notch.

13. The catheter system of claim 12, further comprising a needle hub coupled to the catheter adapter, wherein a proximal end of the introducer needle is secured within the needle hub, wherein the needle hub includes a flash chamber in fluid communication with the needle lumen and proximal to the proximal end of the introducer needle, wherein the flash chamber includes a gas permeable vent.

14. The catheter system of claim 12, wherein the catheter adapter further comprises a gas permeable vent extending through a wall of the catheter adapter distal to the blood control septum, wherein the gas permeable vent is selectively opened and closed.

15. The catheter system of claim 12, further comprising a seal disposed within the lumen of the catheter adapter distal to the blood control septum, wherein the introducer needle is rotatable between a priming position and the insertion position, wherein when the introducer needle is in the priming position, the seal covers the second notch and seals the second notch, wherein when

the introducer needle is in the insertion position, the seal does not cover the second notch and fluid may flow through the second notch.

16. The catheter system of claim 12, wherein the second notch is disposed within the catheter when the introducer needle is in the insertion position.

17. The catheter system of claim 12, wherein the second notch is disposed within the lumen of the catheter adapter when the introducer needle is in the insertion position.