CLAIMS

What is claimed is:

1. A method of a guidewire-management device, comprising:

connecting a first sleeve of the guidewire-management device to a hub of a medical device inserted into an insertion site of a patient, the first sleeve configured as a male connector with a Luer taper;

advancing a guidewire of the guidewire-management device from the first sleeve through the hub of the medical device and into the insertion site of the patient, the guidewire disposed within a sterile barrier configured to maintain sterility of the guidewire until being fed into the first sleeve; and

withdrawing the guidewire from the insertion site of the patient through the hub of the medical device and into the first sleeve, a bore in a proximal portion of the first sleeve including a metering-mechanism configured to meter the sterile barrier out of the bore to recover the guidewire when withdrawing the guidewire from the insertion site of the patient.

2. The method of claim 1, wherein advancing the guidewire includes pinching the guidewire within the sterile barrier and advancing the guidewire into the first sleeve by hand, the sterile barrier being a pleated bag or a bellowed boot.

3. The method of claim 1, wherein advancing the guidewire includes pressing the guidewire within the sterile barrier onto a thumb wheel and rolling the thumb wheel to advance the guidewire into the first sleeve, the sterile barrier being a pleated bag.

4. The method of any claim of claims 1-3, further comprising ceasing to advance the guidewire into the insertion site of the patient when a ball end of a proximal portion of the guidewire is captured in a constriction of a bore in a proximal portion of a second sleeve of the guidewire-management device.

5. The method of any claim of claims 1-4, wherein a seal in the first sleeve blocks fluid from entering or escaping the guidewire-management device when withdrawing the guidewire from the insertion site of the patient through the hub of the medical device and into the first sleeve.

6. The method of claim 5, wherein a distal portion of the guidewire includes a 'J'-shaped tip configured to straighten as the tip of the guidewire enters the first sleeve when withdrawing the guidewire from the insertion site.

7. The method of any claim of claims 5-6, further comprising ceasing to withdraw the guidewire from the insertion site of the patient when a proximal end of the guidewire abuts a plug in a proximal portion of a guidewire conduit of the guidewire-management device.

8. A guidewire-management device, comprising:

a handle;

a guidewire;

a first sleeve formed in a distal portion of the handle;

a second sleeve formed in a proximal portion of the handle, the guidewire extending between the first sleeve and the second sleeve disposed within a capsule to maintain sterility of the guidewire;

a guidewire-gripping wheel disposed under the guidewire between the first sleeve and the second sleeve configured to grip the guidewire when the wheel is turned; and

a knob coupled to the wheel configured to assist in distally feeding the guidewire out of the guidewire-management device by way of the first sleeve or proximally feeding the guidewire into the guidewire-management device by way of the first sleeve when the knob is respectively rotated clockwise or counterclockwise.

9. The guidewire-management device of claim 8, wherein the first sleeve has a distal portion configured as a male connector with a Luer taper for connecting the first sleeve to a complementary female connector.

10. The guidewire-management device of either claim 8 or 9, wherein the first sleeve is configured to straighten a 'J'-shaped tip in a distal portion of the guidewire as the tip of the guidewire enters the first sleeve when proximally feeding the guidewire into the guidewire-management device.

11. The guidewire-management device of any claim of claims 8-10, wherein the second sleeve has a proximal portion including a bore with a constriction configured to capture a ball end of the guidewire and stop the guidewire from completely passing through the second sleeve.

12. The guidewire-management device of any claim of claims 8-11, further comprising a guidewire conduit coupled to the second sleeve configured to distally feed the guidewire into the guidewire-management device by way of the second sleeve, the guidewire conduit configured to maintain sterility of the guidewire outside of the first sleeve, the capsule, and the second sleeve.

13. The guidewire-management device of claim 12, wherein the handle includes a channel configured to hold the guidewire conduit therein when the guidewire conduit is in a coiled configuration.

14. A guidewire-management device, comprising:

a handle;

a guidewire;

a first sleeve formed in a distal portion of the handle;

a second sleeve formed in a proximal portion of the handle, at least a length of the guidewire extending between the first sleeve and the second sleeve disposed within a sterile barrier configured to maintain sterility of the guidewire; and

a gapped guidewire conduit coupled to the second sleeve, a gap in the gapped guidewire conduit configured to allow the guidewire to be grasped and distally fed into the guidewire-management device by way of the second sleeve.

15. The guidewire-management device of claim 14, wherein the first sleeve has a distal portion configured as a male connector with a Luer taper for connecting the first sleeve to a complementary female connector.

16. The guidewire-management device of either claim 14 or 15, wherein the first sleeve is configured to straighten a ‘J’-shaped tip in a distal portion of the guidewire as the tip of the guidewire enters the first sleeve when proximally feeding the guidewire into the guidewire-management device.

17. The guidewire-management device of any claim of claims 14-16, wherein the second sleeve has a proximal portion including a bore with a constriction configured to capture a ball end of the guidewire and stop the guidewire from completely passing through the second sleeve.

18. The guidewire-management device of any claim of claims 14-17, wherein the sterile barrier is a pleated bag over an entirety of the guidewire excepting that within or distal to the first sleeve configured to pleat as the bag is inserted into a bore in a proximal portion of the first sleeve while distally feeding the guidewire out of the guidewire-management device.

19. The guidewire-management device of any claim of claims 14-17, wherein the sterile barrier is a splittable casing over an entirety of the guidewire excepting that within or distal to the first sleeve, the splittable casing configured to split off the guidewire while distally feeding the guidewire out of the guidewire-management device.

20. The guidewire-management device of claim 19, further comprising a first split sleeve in the distal portion of the handle, the first split sleeve configured to discharge the splittable casing while distally feeding the guidewire out of the guidewire-management device.

21. A guidewire-management device, comprising:

a handle;

a guidewire;

a first sleeve formed in a distal portion of the handle;

a second sleeve formed in a proximal portion of the handle, the guidewire extending between the first sleeve and the second sleeve optionally disposed within a capsule to maintain sterility of the guidewire;

a guidewire conduit coupled to the second sleeve configured to distally feed the guidewire into the guidewire-management device by way of the second sleeve, the guidewire conduit configured to maintain sterility of the guidewire outside of the first sleeve, the capsule, and the second sleeve; and

a tether coupled to a proximal portion of the guidewire and disposed in the guidewire conduit along with the guidewire, the tether configured to assist in distally feeding the guidewire out of the guidewire-management device by way of the first sleeve when the tether is pulled away from the guidewire-management device.

22. The guidewire-management device of claim 21, wherein the first sleeve has a distal portion configured as a male connector with a Luer taper for connecting the first sleeve to a complementary female connector.

23. The guidewire-management device of either claim 21 or 22, wherein the first sleeve is configured to straighten a 'J'-shaped tip in a distal portion of the guidewire as the tip of the guidewire enters the first sleeve when proximally feeding the guidewire into the guidewire-management device.

24. The guidewire-management device of any claim of claims 21-23, wherein the second sleeve has a proximal portion including a bore with a constriction configured to capture a mass about a proximal portion of the guidewire and stop the guidewire from completely passing through the second sleeve.

25. The guidewire-management device of any claim of claims 21-24, wherein the handle includes a guidewire-conduit channel configured to hold the guidewire conduit therein when the guidewire conduit is in a coiled configuration.

26. The guidewire-management device of any claim of claims 21-25, wherein the handle includes a tether channel extending through a portion of the handle, a tether wire of the tether disposed in the tether channel without the guidewire.

27. The guidewire-management device of claim 26, wherein the tether wire has a stiffness sufficient for proximally feeding the tether wire into the guidewire-management device along with the guidewire.

28. The guidewire-management device of either claim 26 or 27, further including a thumb wheel configured to assist in distally feeding the tether wire out of the guidewire-management device.

29. The guidewire-management device of either claim 26 or 27, wherein the tether wire is coupled to a slider disposed in a slot of the handle, the slider configured to provide a user interface for at least distally feeding the guidewire out of the guidewire-management device.

30. The guidewire-management device of any claim of claims 26-29, wherein the guidewire-management device is configured such that the tether wire never contacts the guidewire except for a coupling that couples proximal ends of the tether wire and the guidewire together.

31. The guidewire-management device of any claim of claims 21-25, wherein the guidewire is disposed in a splittable casing in at least the guidewire conduit, any portion of the splittable casing split off of the guidewire forming a tether line configured to provide a user interface for at least distally feeding the guidewire out of the guidewire-management device.

32. A guidewire-management device, comprising:

a handle;

a guidewire;

a first sleeve formed in a distal portion of the handle;

a second sleeve formed in a proximal portion of the handle, the guidewire concealed in the handle between the first sleeve and the second sleeve to maintain sterility of the guidewire;

a guidewire conduit coupled to the second sleeve configured to distally feed the guidewire into the guidewire-management device by way of the second sleeve, the guidewire conduit configured to maintain the sterility of the guidewire in combination with the handle;

a combination of a thumb wheel, a guidewire-gripping wheel coupled to the thumb wheel, and a compression wheel between the first sleeve and the second sleeve, the guidewire disposed between the guidewire-gripping wheel and the compression wheel such that the guidewire is distally fed out of the guidewire-management device by way of the first sleeve or proximally fed into the guidewire-management device by way of the first sleeve in accordance with turning the thumb wheel.