WHAT IS CLAIMED IS:

1. A flush syringe assembly comprising:

a barrel including a side wall having an inside surface defining a chamber for retaining fluid, an open proximal end, a distal end including a distal wall with a first tip extending distally therefrom having a first passageway therethrough in fluid communication with said chamber, the first tip adapted for connection to a reservoir collar;

a plunger rod disposed within the barrel, the plunger rod comprising a distal portion and a proximal portion, the plunger rod further comprising a distal end including a stopper slidably positioned in fluid-tight engagement with the inside surface of the barrel for drawing fluid into and driving fluid out of the chamber by movement of the stopper relative to the barrel, the plunger rod extending outwardly from the open proximal end of the barrel, the stopper having a distal surface; and

the reservoir collar mounted on the distal wall of the barrel and surrounding the first tip, the reservoir collar including at least one side wall having an inside surface defining a compartment containing a disinfectant or antimicrobial agent, a sealed distal end, a proximal end adjacent the distal wall of the barrel, with a second tip extending distally therefrom having a second passageway therethrough in fluid communication with said first passageway, the second tip adapted for connection to a hub of a vascular access device.

2. The flush syringe assembly of claim 1, wherein the reservoir collar has a plurality of threads on the inside surface for connection to the hub of the vascular access device.

3. The flush syringe assembly of any of claims 1-2, wherein the distal wall of the barrel and the proximal end of the reservoir collar both contain a plurality of threads to connect the reservoir collar to the barrel.

4. The flush syringe assembly of claim 3, wherein the proximal end of the reservoir collar is threaded onto the distal wall of the barrel.

5. The flush syringe assembly of any of claims 1-2, wherein the reservoir collar further comprises an absorbent material for soaking up the disinfectant or antimicrobial agent.

6. The flush syringe assembly of any of the preceding claims, wherein the reservoir collar surrounds a connector collar adapted for connection to the hub of the vascular access device.

7. The flush syringe assembly of any of the preceding claims, wherein the disinfectant or antimicrobial agent is a fluid or gel.

8. The flush syringe assembly of any of the preceding claims, wherein the disinfectant or antimicrobial agent is selected from the group consisting of ethanol, 2-propanol, butanol, methylparaben, ethylparaben, propylparaben, propyl gallate, butylated hydroxyanisole (BHA), butylated hydroxytoluene, t-butyl-hydroquinone, chloroxylenol, chlorohexidine, dichlorobenzyl alcohol, dehydroacetic acid, hexetidine, triclosan, hydrogen peroxide, colloidal silver, and mixtures thereof.

9. The flush syringe assembly of claim 6, further comprising an absorbent material, for soaking up the disinfectant or antimicrobial agent dispersed within the connector collar.

10. The flush syringe assembly of claim 9, wherein the disinfectant or antimicrobial agent is a fluid, foam, or gel.

11. The flush syringe assembly of any of the preceding claims, further comprising a seal adhered to the distal end of the reservoir collar.

12. The flush syringe assembly of claim 11, wherein the seal comprises an aluminum or multi-layer polymer film peel back top.

13. The flush syringe assembly of any of the preceding claims, further comprising an aluminum lining adhered to the inside surface of the at least one side wall of the reservoir collar.

14. The flush syringe assembly of claim 5, wherein the absorbent material compresses toward the proximal end of the reservoir collar upon connection to the hub of the vascular access device.

15. The flush syringe assembly of claim 14, wherein the compression of the absorbent material disinfects the vascular access device.

16. The flush syringe assembly of claim 9, wherein the absorbent material compresses upon connection to the hub of the vascular access device.

17. The flush syringe assembly of claim 16, wherein the compression of the absorbent material disinfects the vascular access device.

18. The flush syringe assembly of any of the preceding claims, wherein connection to the hub of the vascular access device disinfects the vascular access device.

19. The flush syringe assembly of claim 6, wherein the connection collar is a Luer connector.

20. The flush syringe assembly of any of the preceding claims, wherein the reservoir collar is removable.

21. The flush syringe assembly of claim 20, further comprising a seal adhered to the proximal end of the reservoir collar that is pierced by the first tip of the barrel upon connection of the reservoir collar to the distal wall of the barrel.

22. The flush syringe assembly of claim 21, wherein the seal is a pierceable aluminum.

23. A method of disinfecting a vascular access device, the method comprising:

connecting a flush syringe assembly to a hub of the vascular access device, wherein connecting includes frictionally engaging a reservoir collar having a tip on the flush syringe with the hub of the vascular access device such that the hub contacts an antimicrobial agent or disinfectant contained within the reservoir collar.

24. The method of claim 23, wherein the reservoir collar further contains an absorbent material.

25. The method of claim 23 or 24, wherein the reservoir collar includes a first tip and a second tip and the flush syringe includes a seal covering the reservoir collar and the first and second tip.

26. The method of claim 25, wherein upon connecting the flush syringe assembly to the hub, the seal is removed to expose the second tip to the antimicrobial agent or disinfectant.

27. The method of claim 26, wherein the reservoir collar further comprises threads that engage threads on the hub, and connecting occurs by engaging the threads on the hub and the reservoir collar by twisting the vascular access device with respect to the flush syringe.

28. The method of claim 26, wherein upon connection, the hub contacts the antimicrobial agent or disinfectant and the absorbent material.

WHAT IS CLAIMED IS:

1. A flush syringe assembly comprising:

a barrel including a side wall having an inside surface defining a chamber for retaining a fluid, an open proximal end, a distal end including a distal wall with a first tip extending distally therefrom having a first passageway therethrough in fluid communication with said chamber, the first tip adapted for connection to a reservoir collar;

a plunger rod disposed within the barrel, the plunger rod comprising a distal portion and a proximal portion, the plunger rod further comprising a distal end including a stopper slidably positioned in fluid-tight engagement with the inside surface of the barrel for drawing the fluid into and driving the fluid out of the chamber by movement of the stopper relative to the barrel, the plunger rod extending outwardly from the open proximal end of the barrel, the stopper having a distal surface; and

the reservoir collar mounted on the distal wall of the barrel and surrounding the first tip, the reservoir collar including at least one side wall having an inside surface defining a compartment containing a disinfectant or antimicrobial agent, a sealed distal end, a proximal end adjacent the distal wall of the barrel, with a second tip extending distally therefrom having a second passageway therethrough in fluid communication with said first passageway, the second tip adapted for connection to a hub of a vascular access device, with disinfection of the hub of the vascular access device by the disinfectant or antimicrobial agent.

2. The flush syringe assembly of claim 1, wherein the reservoir collar has a plurality of threads on the inside surface for connection to the hub of the vascular access device.

3. The flush syringe assembly of claim 2, wherein the reservoir collar further comprises an absorbent material for soaking up the disinfectant or antimicrobial agent.

4. The flush syringe assembly of claim 3, wherein the absorbent material compresses toward the proximal end of the reservoir collar upon connection to the hub of the vascular access device.

5. The flush syringe assembly of claim 4, wherein the compression of the absorbent material disinfects the vascular access device.

6. The flush syringe assembly of claim 1, wherein the distal wall of the barrel and the proximal end of the reservoir collar both contain a plurality of threads to connect the reservoir collar to the barrel.

7. The flush syringe assembly of claim 6, wherein the proximal end of the reservoir collar is threaded onto the distal wall of the barrel.

8. The flush syringe assembly of claim 1, wherein the reservoir collar surrounds a connector collar adapted for connection to the hub of the vascular access device.

9. The flush syringe assembly of claim 8, further comprising an absorbent material, for soaking up the disinfectant or antimicrobial agent, dispersed within the connector collar.

10. The flush syringe assembly of claim 9, wherein the disinfectant or antimicrobial agent is a fluid, foam, or gel.

11. The flush syringe assembly of claim 9, wherein the absorbent material compresses upon connection to the hub of the vascular access device.

12. The flush syringe assembly of claim 11, wherein the compression of the absorbent material disinfects the vascular access device.

13. The flush syringe assembly of claim 8, wherein the connection collar is a Luer connector.

14. The flush syringe assembly of claim 1, wherein the disinfectant or antimicrobial agent is a fluid or gel.

15. The flush syringe assembly of claim 1, wherein the disinfectant or antimicrobial agent is selected from the group consisting of ethanol, 2-propanol, butanol, methylparaben, ethylparaben, propylparaben, propyl gallate, butylated hydroxyanisole (BHA), butylated hydroxytoluene, t-butyl-hydroquinone, chloroxylenol, chlorohexidine, dichlorobenzyl alcohol, dehydroacetic acid, hexetidine, triclosan, hydrogen peroxide, colloidal silver, and mixtures thereof.

16. The flush syringe assembly of claim 1, further comprising a seal adhered to the distal end of the reservoir collar.

17. The flush syringe assembly of claim 16, wherein the seal comprises an aluminum or multi-layer polymer film peel back top.

18. The flush syringe assembly of claim 1, further comprising an aluminum lining adhered to the inside surface of the at least one side wall of the reservoir collar.

19. The flush syringe assembly of claim 1, wherein connection of the second tip to the hub of the vascular access device disinfects the vascular access device.

20. The flush syringe assembly of claim 1, wherein the reservoir collar is removable.

21. The flush syringe assembly of claim 20, further comprising a seal adhered to the proximal end of the reservoir collar that is pierced by the first tip of the barrel upon connection of the reservoir collar to the distal wall of the barrel.

22. The flush syringe assembly of claim 21, wherein the seal is a pierceable aluminum.