

CLAIMS

1. An apparatus, comprising:

a stabilization device having a distal end portion, a proximal end portion, and a longitudinal centerline extending between the distal end portion and the proximal end portion, the stabilization device configured to stabilize an access device when a distal end portion of the access device is inserted through a target location of a patient and at least partially disposed within a portion of the patient, the stabilization device including:

a coupling surface configured to be placed in contact with an adapter coupled to a proximal end portion of the access device, wherein the coupling surface comprises at least one side channel extending substantially perpendicular to the longitudinal centerline of the stabilization device,

at least one protrusion formed on the coupling surface and extending substantially parallel to the longitudinal centerline of the stabilization device, wherein the at least one protrusion is positioned outside of the at least one side channel of the coupling surface,

a proximal surface forming at least one angle configured to facilitate securement of the stabilization device to the target location of the patient, and

a base surface forming a contoured portion and a recessed portion, the contoured portion having a concave shape based at least in part on a curvature of the target location of the patient, the recessed portion having a concave shape extending toward and having an orientation opposite the coupling surface such that the recessed portion is spaced apart from the target location of the patient when the contoured portion is in contact with the target location of the patient, the recessed portion being disposed between the target location of the patient and the coupling surface,

the stabilization device configured to be secured to the target location of the patient such that (1) the adapter is retained in a fixed position relative to the coupling surface and (2) the access device is stabilized relative to the target location of the patient.

2. The apparatus of claim 1, wherein the access device is a vascular access device.

3. The apparatus of claim 1, wherein the access device is an intravenous catheter configured to be at least partially disposed within a vein of a patient.

4. The apparatus of claim 1, wherein the access device is an intravenous catheter configured to be at least partially disposed within a vein of a patient, the stabilization device configured to be positioned relative to the target location such that (1) the contoured portion of the base surface is in contact with the target location of the patient and (2) the recessed portion of the base surface is aligned with and spaced apart from the vein in which the intravenous catheter is at least partially disposed.

5. The apparatus of claim 1, wherein the adapter is an extension set and the access device is an intravenous catheter.

6. The apparatus of claim 1, wherein the adapter is a T-adapter having a proximal locking mechanism, a distal locking mechanism, and a side port, the side port is substantially perpendicular to a longitudinal axis of the T-adapter extending through the proximal locking mechanism and the distal locking mechanism, and

the at least one side channel of the coupling surface is configured to be placed in contact with the side port of the T-adapter.

7. The apparatus of claim 6, wherein the at least one protrusion is configured to selectively engage the T-adapter such that when the distal locking mechanism of the T-adapter is in contact with a distal portion of the coupling surface, the position of the side port along the longitudinal axis of the T-adapter is aligned with a position of the at least one side channel along the longitudinal centerline of the stabilization device to allow the side port to be placed in contact with the at least one side channel.

8. The apparatus of claim 6, wherein the at least one protrusion is configured to selectively engage the T-adapter such that when the proximal locking mechanism of the T-adapter is in contact with a distal portion of the coupling surface, the position of the side port along the longitudinal axis of the T-adapter is misaligned relative to a position of the at least one side channel along the

longitudinal centerline of the stabilization device such that contact between the side port and the at least one side channel is substantially prevented.

9. An apparatus, comprising:

a stabilization device configured to stabilize a vascular access device at least partially disposed within a vein of a patient, the stabilization device having a distal end portion, a proximal end portion, and a longitudinal centerline extending between the distal end portion and the proximal end portion,

the stabilization device including a base surface and a coupling surface, the base surface forming a contoured portion having a concave shape based at least in part on a curvature of a target location of the patient and a recessed portion having a concave shape extending toward and having an orientation opposite the coupling surface such that the recessed portion is at least partially aligned with and spaced apart from the vein of the patient when the contoured portion is placed in contact with the target location of the patient, the recessed portion being disposed between the target location of the patient and the coupling surface,

the coupling surface configured to be placed in contact with an adapter coupled to a proximal end portion of the vascular access device, the coupling surface including a first portion and a second portion, the first portion of the coupling surface including at least one protrusion extending substantially parallel to the longitudinal centerline of the stabilization device and configured to selectively engage the adapter such that (1) a portion of the adapter is aligned with and configured to be placed in contact with the second portion of the coupling surface when the first portion of the coupling surface is in contact with a distal end portion of the adapter, and (2) the portion of the adapter is misaligned with and spaced apart from the second portion of the coupling surface when the first portion of the coupling surface is in contact with a proximal end portion of the adapter, wherein the second portion of the coupling surface comprises at least one side channel extending substantially perpendicular to the longitudinal centerline of the stabilization device, and further wherein the at least one protrusion is positioned outside of the at least one side channel of the coupling surface.

10. The apparatus of claim 9, wherein the stabilization device is configured to be secured to the target location of the patient to (1) retain the adapter in a fixed position relative to the coupling surface and (2) stabilize the access device relative to the target location of the patient.

11. The apparatus of claim 9, wherein the contoured portion of the base surface is configured to be in contact with the target location of the patient and to apply a force to the target location when the stabilization device is secured to the target location, the recessed portion of the base surface is configured to be spaced apart from the target location and does not apply a force to the target location when the stabilization device is secured to the target location.

12. The apparatus of claim 9, wherein the first portion of the coupling surface defines a notch configured to receive a part of the adapter.

13. The apparatus of claim 9, wherein the first portion of the coupling surface is a distal portion of the coupling surface.

14. The apparatus of claim 13, the adapter is a T-adapter, the proximal end portion of the T-adapter including a proximal locking mechanism and the distal end portion of the T-adapter including a distal locking mechanism, the portion of the adapter is a side port of the T-adapter, the side port is substantially perpendicular to a longitudinal axis of the T-adapter extending through the proximal locking mechanism and the distal locking mechanism.

15. The apparatus of claim 14, wherein a position of the side port along the longitudinal axis of the T-adapter is substantially aligned with a position of the at least one side channel along the longitudinal centerline of the stabilization device when the distal locking mechanism is in contact with the distal portion of the coupling surface.

16. The apparatus of claim 14, wherein a position of the side port along the longitudinal axis of the T-adapter is misaligned relative to a position of the at least one side channel along the longitudinal centerline of the stabilization device when the proximal locking mechanism is in contact with the distal portion of the coupling surface.

17. The apparatus of claim 1, wherein the stabilization device is configured to be secured to the target location of the patient such that (1) the adapter is retained in the fixed position relative to the coupling surface, (2) the access device is stabilized relative to the target location of the patient, and (3) the adapter is disposed at a desired angle relative to the target location based at least in part on an angle of insertion associated with the access device.

18. The apparatus of claim 6, wherein the at least one side channel has a first end portion adjacent to the coupling surface, the at least one side channel extending at an angle from the first end portion to a second end portion adjacent to the base surface.

19. The apparatus of claim 10, wherein the stabilization device is configured to be secured to the target location of the patient to (1) retain the adapter in the fixed position relative to the coupling surface, (2) stabilize the access device relative to the coupling surface, and (3) disposed the adapter at a desired angle relative to the target location based at least in part on an angle of insertion associated with the access device.

20. The apparatus of claim 13, wherein the at least one side channel extends at an angle from a first end adjacent to the first portion of the coupling surface to a second end adjacent to the base surface.

21. The apparatus of claim 16, wherein the distal portion of the coupling surface includes the at least one protrusion that contacts the proximal locking mechanism when the proximal locking mechanism is in contact with the distal portion of the coupling surface, and wherein the contact between the at least one protrusion and the proximal locking mechanism is operable to misalign the side port relative to the at least one side channel.