Claims

1. A system, comprising:

a container assembly including a cap and defining a reservoir, the container assembly having a first end and a second end, the cap disposed at the first end of the container assembly;

a fluid access assembly including a housing defining an interior, a fluid access component, a fluid connector component, and an engagement feature, the housing having a first end and a second end, the fluid access component extending from the first end of the housing into the interior of the housing, the fluid access component defining a lumen, the fluid connector component disposed on the first end of the housing and configured to be coupled to a patient access device such that the lumen of the fluid access component can be in fluidic communication with a patient's vasculature via the fluid connector component and the patient access device; and

an adapter including a first engagement feature and a second engagement feature, the first engagement feature of the adapter configured to releasably engage with the cap of the container assembly and the second engagement feature of the adapter configured to releasably engage with the engagement feature of the fluid access assembly such that, in a first configuration in which the first engagement feature of the adapter is engaged with the cap and the second engagement feature of the adapter is engaged with the engagement feature of the fluid access assembly, the cap of the container assembly is at least partially disposed within the interior of the housing and spaced from the fluid access component.

2. The system of claim 1, wherein the container assembly is configured to be transitioned from the first configuration to a second configuration via translating the container assembly toward the first end of the fluid access assembly such that the cap is disengaged from the first engagement feature of the adapter and the fluid access component pierces a resealable membrane of the cap such that the reservoir of the container assembly is in fluidic communication with the fluid connector component via the lumen of the fluid access component.

3. The system of claim 1, wherein the reservoir of the container assembly is evacuated.

4. The system of claim 1, wherein the engagement feature of the fluid access assembly includes a flange extending outward relative to central axis of the housing of the fluid access assembly.

5. The system of claim 1, wherein the container assembly is a first container assembly, and further comprising a second container assembly configured to be engaged with the fluid access component after removal of the first container assembly via translating the second container assembly toward the first end of the fluid access assembly such that a resealable membrane of the second container assembly is pierced by the fluid access component and a reservoir of the second container assembly is in fluidic communication with the fluid connector component via the lumen of the fluid access component.

6. The system of claim 1, wherein the reservoir of the second container assembly includes a medium configured to be combined with a blood sample to perform a blood culture.

7. The system of claim 1, wherein the housing of the fluid access assembly includes a first housing portion and a second housing portion, the first housing portion defining the interior and the second housing portion including the engagement feature, the second housing portion configured to be partially disposed within the interior of the first housing portion.

8. A method of using a system, the system in an initial configuration including:

a container assembly including a cap and defining a reservoir, the container assembly having a first end and a second end, the cap disposed at the first end of the container assembly,

a fluid access assembly including a housing defining an interior, a fluid access component, a fluid connector component, and an engagement feature, the housing having a first end and a second end, at least a portion of the fluid access component extending from the first end of the housing into the interior of the housing, the fluid access component defining a lumen, the fluid connector component disposed on the first end of the housing and configured to be coupled to a patient access device such that the lumen of the fluid access component can be in fluidic communication with a patient's

vasculature via the fluid connector component and the patient access device, the engagement feature of the fluid access assembly disposed on the second end of the housing, and

an adapter including a first engagement feature and a second engagement feature, the first engagement feature of the adapter releasably engaged with the cap of the container assembly and the second engagement feature of the adapter releasably engaged with the engagement feature of the fluid access assembly in the initial configuration such that the cap of the container assembly is at least partially disposed within the interior of the housing and spaced from the fluid access component, the method comprising:

translating the container assembly toward the first end of the fluid access assembly and relative to the adapter such that the cap is disengaged from the first engagement feature of the adapter and the fluid access component pierces a resealable membrane of the cap such that the reservoir of the container assembly is in fluidic communication with the fluid connector component via the lumen of the fluid access component;

decoupling the second engagement feature of the adapter from the engagement feature of the fluid access assembly; and

translating the container assembly away from the first end of the fluid access assembly and out of the interior of the fluid access assembly such that the container assembly and the adapter are separated from the fluid access assembly.

9. The method of claim 8, further comprising sterilizing the system.

10. The method of claim 8, wherein decoupling the second engagement feature of the adapter from the engagement feature of the fluid access assembly includes at least one of rotating, unlatching, and/or deforming the adapter relative to the housing of the fluid access assembly.

11. The method of claim 8, wherein the container assembly is a first container assembly, the method further comprising:

after translating the first container assembly away from the first end of the fluid access assembly and out of the interior of the fluid access assembly, translating a second container assembly toward the first end of the fluid access assembly such that a resealable

membrane of the second container assembly is pierced by the fluid access component and a reservoir of the second container assembly is in fluidic communication with the fluid connector component via the lumen of the fluid access component.

12. The method of claim 11, wherein the reservoir of the second container assembly includes a medium configured to be combined with a blood sample to perform a blood culture.