CLAIMS

1. A sensor assembly for detecting fluid infiltration at a catheter infusion site in a patient, the sensor assembly comprising:

a first elongate sensor member configured to couple to a patient at a first location proximate a catheter infusion site;

a second elongate sensor member configured to couple to the patient at a second location proximate the catheter infusion site, the second elongate sensor member comprising an envelope, the envelope comprising:

an inferior elongate member; and

a superior elongate member coupled to the inferior elongate member and defining an interior space intermediate the inferior and superior elongate members,

wherein:

the interior space of the envelope is configured to receive the first elongate sensor member therein; and

an open end of the envelope is configured to allow a first end of the first elongate sensor member to protrude from the open end of the envelope;

a first marking coupled to the first elongate sensor member; and

a second marking coupled to the superior elongate member of the second elongate sensor member;

wherein:

the first elongate sensor member is slidably coupled within the second elongate sensor member such that the first and second elongate sensor members are translatable relative to each other, wherein the first elongate sensor member is configured to translate with respect to the second elongate sensor member in response to infiltration at the catheter infusion site;

the first and second markings are configured to indicate a range of relative positions between the first and second elongate sensor members as the first and second elongate sensor members translate relative to each other; and

at least one relative position within a range of relative positions between the first and second elongate sensor members is indicative of infiltration at the catheter infusion site.

2. The sensor assembly of claim 1, wherein:

the first marking comprises a first shape having a first color and a first size; and

the second marking comprises a second shape having a second color and a second size.

3. The sensor assembly of claim 2, wherein:

the first and second shapes and the first and second sizes are substantially similar to each other; and

the first and second colors are different from each other;

wherein:

in a first position, the second marking visually occludes the first marking; and

in a second position, the second marking does not visually occlude at least a portion of the first marking to indicate infiltration at the catheter infusion site.

4. The sensor assembly of claim 2, further comprising a light sensor configured to detect at least one of the first color and the second color.

5. The sensor assembly of claim 1, further comprising:

a first adhesive member configured to couple the first elongate sensor member to the patient at the first location proximate the catheter infusion site; and

a second adhesive member configured to couple the inferior elongate member of the second elongate sensor member to the patient at the second location proximate the catheter infusion site.

6. The sensor assembly of claim 5, further comprising:

a removable inferior cover configured to protect the first and second adhesive members; and

a removable superior cover configured to maintain a relative position between the first and second elongate sensor members.

7. The sensor assembly of claim 1, further comprising an anti-stiction component configured to reduce friction between the first and second elongate sensor members.

8. A sensor for detecting infiltration at catheter infusion site comprising:

a first elongate sensor member configured to couple to a patient at a first location proximate a catheter infusion site;

a second elongate sensor member configured to couple to the patient at a second location proximate the catheter infusion site;

at least one first marking coupled to the first elongate sensor member; and

at least one second marking coupled to the second elongate sensor member;

wherein:

the first elongate sensor member is slidably coupled to the second elongate sensor member such that the first and second elongate sensor members are translatable relative to each other, wherein the first elongate sensor member is configured to translate with respect to the second elongate sensor member in response to infiltration at the catheter infusion site;

the at least one first and second markings are configured to indicate a range of relative positions between the first and second elongate sensor members as the first and second elongate sensor members translate relative to each other; and

at least one relative position within a range of relative positions between the first and second elongate sensor members is indicative of infiltration at the catheter infusion site.

9. The sensor of claim 8, wherein:

the at least one first marking comprises a first shape having a first color and a first size; and

the at least one second marking comprises a second shape having a second color and a second size.

10. The sensor of claim 9, wherein:

the first and second shapes and the first and second sizes are substantially similar to each other; and

the first and second colors are different from each other;

wherein:

in a first position, the at least one second marking visually occludes the at least one first marking; and

in a second position, the at least one second marking does not visually occlude at least a portion of the at least one first marking to indicate infiltration at the catheter infusion site.

11. The sensor of claim 8, wherein:

the second elongate sensor member comprises an envelope, the envelope comprising:

an inferior elongate member; and

a superior elongate member coupled to the inferior elongate member and defining an interior space between the inferior and superior elongate members,

wherein:

the interior space of the envelope is configured to receive the first elongate sensor member therein; and

an open end of the envelope is configured to allow a first end of the first elongate sensor member to protrude from the open end of the envelope.

12. The sensor of claim 11, further comprising:

a first adhesive member configured to couple the first elongate sensor member to the patient at the first location proximate the catheter infusion site; and

a second adhesive member configured to couple the second elongate sensor member to the patient at the second location proximate the catheter infusion site.

13. The sensor of claim 12, further comprising:

a removable inferior cover configured to protect the first and second adhesive members; and

a removable superior cover configured to maintain a relative position between the first and second elongate sensor members.

14. The sensor of claim 8, further comprising an anti-stiction component configured to reduce friction between the first and second elongate sensor members.