

WHAT IS CLAIMED IS:

1. A portable medical device protector comprising:
an impermeable container, the impermeable container having an inner surface configured to hold a portion of a portable medical device;
a permeable applicator within the impermeable container; and
an antimicrobial or antiseptic agent disposed on or within the permeable applicator.
2. The medical device protector of claim 1, wherein the impermeable container comprises polyethylene, aluminum oxide, silicon oxide coated polymeric films, polypropylene, polysilicone, polytetrafluoroethylene, polyvinyl chloride, mylar, or a mixture thereof.
3. The medical device protector of claim 1, wherein the impermeable container comprises a draw string, a zip-lock, a foam opening, a twist tie, a plastic clip, or a spring material to secure the impermeable container around the portable medical device.
4. The medical device protector of claim 1, wherein the permeable applicator comprises starch polymer, cellulosic gel, polyethylene foam, silicone open-cell foam, or mixtures thereof.

5. The medical device protector of claim 1, wherein the permeable applicator has a rough, a coarse, a smooth, a micro or a nano texture configured to scrub the portable medical device.

6. The medical device protector of claim 1, wherein the antimicrobial or antiseptic agent disposed within the permeable applicator comprises:

about 5 to about 50 mg/ml of ethylenediaminetetraacetic acid (EDTA);

at most about 70% ethanol, by volume;

at most about 7.5% hydrogen peroxide, by volume; and

water.

7. A method of preventing the spread of infectious agents comprising:

identifying a device protector to use with a portable medical device, the device protector comprising:

a sealable impermeable receptacle configured to hold a portion of the portable medical device;

a permeable applicator arranged within the impermeable receptacle; and

an antimicrobial or antiseptic agent carried by the permeable applicator;

using the identified device protector with the portable medical device, the using comprises:

opening the sealable impermeable receptacle;

removing the permeable applicator from the receptacle;
applying the permeable applicator containing the antimicrobial or antiseptic agent to at least a portion of the portable medical device;
placing at least a portion of the portable medical device within the impermeable receptacle; and
sealing the impermeable receptacle around the portion of the portable medical device to prevent recontamination.

8. The method as recited in claim 7, wherein the portable medical comprises at least one of a stethoscope, a thermometer, a blood pressure monitor, an ultrasonic transducers or other diagnostic equipment.

9. The method as recited in claim 7, wherein the antimicrobial or antiseptic agent may eliminate or inhibit one or more contaminants comprises one of more of bacteria, spores, parasites, viruses, bodily fluids, or mixtures thereof.

10. The method as recited in claim 9, wherein the one or more bacteria includes methicillin-resistant *Staphylococcus aureus* (MRSA), *Pseudomonas aeruginosa* and other resistant bacteria.

11. The method as recited in claim 7, wherein the sealable impermeable container comprises a draw string, a zip-lock, a foam opening, a twist tie, a plastic clip, or

a spring material to secure the impermeable container around the portable medical device.

12. The method as recited in claim 7, wherein the impermeable container comprises polyethylene, silicon oxide coated polymeric films, polypropylene, polysilicone, polytetrafluoroethylene, polyvinyl chloride, mylar, or a mixture thereof.

13. The method as recited in claim 7, wherein the permeable applicator comprises:

starch polymer, cellulosic gel, polyethylene foam, silicone open-cell foam, or mixtures thereof; and

a rough, a coarse, a smooth, a micro or a nano texture configured to scrub the portable medical device.

14. The method as recited in claim 7, wherein the antimicrobial or antiseptic agent disposed within the permeable applicator comprises:

about 5 to about 50 mg/ml of ethylenediaminetetraacetic acid (EDTA);

at most about 70% ethanol, by volume;

at most about 7.5% hydrogen peroxide, by volume; and

water.

15. A portable medical device protector system comprising:
a sterile package housing a removable tray, the removable tray comprising one or more of:

a sealable impermeable receptacle configured to enclose a portion of a portable medical device;

a permeable applicator configured to scrub the portion of the portable medical device; and

a cleansing, antimicrobial or antiseptic agent disposed on within the permeable applicator, wherein the antimicrobial agent comprises, water, a low molecular weight alcohol, a peroxide or peroxide-generating agent and a chelating agent.

16. The portable medical device protector system as recited in claim 15, wherein the removable tray comprises polypropylene, high-density polyethylene, polytetrafluoroethylene, polyvinyl chloride, or any other suitable thermoplastic polymer.

17. The portable medical device protector system as recited in claim 15, wherein the removable tray further comprises a plurality of permeable applicators, each of the plurality of permeable applicators containing various concentration of the antimicrobial agent.

18. The portable medical device protector system as recited in claim 15, wherein the sealable impermeable receptacle comprises a draw string, a zip-lock, a foam opening, a twist tie, a plastic clip, or a spring material to secure the impermeable container around the portable medical device.

19. The portable medical device protector system as recited in claim 15, wherein the sealable impermeable receptacle is further configured to enclose the entire portable medical device.

20. The portable medical device protector system as recited in claim 15, wherein the antimicrobial agent further comprises:

about 5 to about 50 mg/ml of ethylenediaminetetraacetic acid (EDTA);

at most about 70% ethanol, by volume;

at most about 7.5% hydrogen peroxide, by volume; and

water.

CLAIMS

1. A portable medical device protector comprising:
an impermeable container, the impermeable container having walls with an inner surface, in which a portion of a portable medical device is held;
a permeable applicator within the impermeable container; and
an antimicrobial or antiseptic agent disposed on or within the permeable applicator,
wherein the permeable applicator is irremovably attached as interior lining of the impermeable container to the at least a portion of the impermeable container walls inner surface and that the portable medical device is scrubbed or disinfected by the permeable applicator with the antimicrobial or antiseptic agent by manipulation of the walls of the impermeable container by a user.
2. The medical device protector of claim 1, wherein the impermeable container comprises polyethylene, aluminum oxide, silicon oxide coated polymeric films, polypropylene, polysilicone, polytetrafluoroethylene, polyvinyl chloride, mylar, or a mixture thereof.
3. The medical device protector of claim 1, wherein the impermeable container comprises a draw string, a zip-lock, a foam opening, a twist tie, a plastic clip,

or a spring material to secure the impermeable container around the portable medical device.

4. The medical device protector of claim 1, wherein the permeable applicator comprises starch polymer, cellulosic gel, polyethylene foam, silicone open-cell foam, or mixtures thereof.

5. The medical device protector of claim 1, wherein the permeable applicator has a rough, a coarse, a smooth, a micro or a nano texture configured to scrub the portable medical device.

6. The medical device protector of claim 1, wherein the antimicrobial or antiseptic agent disposed within the permeable applicator comprises:

about 5 to about 50 mg/ml of ethylenediaminetetraacetic acid (EDTA);

at most about 70% ethanol, by volume;

at most about 7.5% hydrogen peroxide, by volume; and

water.

7. A method of preventing the spread of infectious agents comprising:
identifying a device protector to use with a portable medical device, the device protector comprising:

a sealable impermeable receptacle configured to hold a portion of the portable medical device, the impermeable receptacle having receptacle walls;

a permeable applicator arranged within the impermeable receptacle, the permeable applicator being attached to one or more inner surfaces of the receptacle walls as interior lining; and

an antimicrobial or antiseptic agent carried by the permeable applicator; using the identified device protector with the portable medical device, the using comprises:

opening the sealable impermeable receptacle;

placing at least a portion of the portable medical device within the impermeable receptacle;

applying the permeable applicator containing the antimicrobial or antiseptic agent to the portion of the portable medical device within the impermeable receptacle through action of manipulation by a user of the receptacle walls, so as to scrub and/or disinfect the portion of the portable medical device with the antimicrobial or antiseptic agent; and

sealing the impermeable receptacle around the portion of the portable medical device to prevent recontamination.

8. The method as recited in claim 7, wherein the portable medical comprises at least one of a stethoscope, a thermometer, a blood pressure monitor, an ultrasonic transducers or other diagnostic equipment.

9. The method as recited in claim 7, wherein the antimicrobial or antiseptic agent may eliminate or inhibit one or more contaminants comprises one of more of bacteria, spores, parasites, viruses, bodily fluids, or mixtures thereof.

10. The method as recited in claim 9, wherein the one or more bacteria includes methicillin-resistant *Staphylococcus aureus* (MRSA), *Pseudomonas aeruginosa* and other resistant bacteria.

11. The method as recited in claim 7, wherein the sealable impermeable container comprises a draw string, a zip-lock, a foam opening, a twist tie, a plastic clip, or a spring material to secure the impermeable container around the portable medical device.

12. The method as recited in claim 7, wherein the impermeable container comprises polyethylene, silicon oxide coated polymeric films, polypropylene, polysilicone, polytetrafluoroethylene, polyvinyl chloride, mylar, or a mixture thereof.

13. The method as recited in claim 7, wherein the permeable applicator comprises:

starch polymer, cellulosic gel, polyethylene foam, silicone open-cell foam, or mixtures thereof; and

a rough, a coarse, a smooth, a micro or a nano texture configured to scrub the portable medical device.

14. The method as recited in claim 7, wherein the antimicrobial or antiseptic agent disposed within the permeable applicator comprises:

about 5 to about 50 mg/ml of ethylenediaminetetraacetic acid (EDTA);

at most about 70% ethanol, by volume;

at most about 7.5% hydrogen peroxide, by volume; and

water.