

CLAIMS

1. A negative pressure wound treatment apparatus comprising:
 - a wound cover configured for creating a sealable space defined in part by a wound surface,
 - a vacuum pump, coupled to the wound cover through a tube, wherein the vacuum pump is configured to apply negative pressure to the sealable space through the tube,
 - a processor, in electronic communication with the vacuum pump, and
 - a display, in electronic communication with the processor,wherein the processor is configured to:
 - determine a state of the vacuum pump,
 - determine an amount of the applied negative pressure of the vacuum pump,
 - determine a patient compliance factor based on the state of the vacuum pump and the amount of the applied negative pressure,
 - determine a graphical object modifier based on the patient compliance factor,
 - select a graphical object,
 - modify at least one of a size, a color, and a shape of the graphical object based on the graphical object modifier, and
 - display the modified graphical object.
2. The negative pressure wound treatment apparatus of claim 1, wherein the processor is further configured to:
 - associate a first periodic timestamp with the state of the vacuum pump; and
 - associate a second periodic timestamp with the amount of the applied negative pressure.
3. The negative pressure wound treatment apparatus of claim 2, wherein the processor is configured to determine the patient compliance factor based on the state of the vacuum pump and the amount of the applied negative pressure by performing steps comprising:
 - matching the first periodic timestamp with the second periodic timestamp;
 - if the first periodic timestamp matches the second periodic timestamp, determining if the state of the vacuum pump associated with the first periodic timestamp is an active state;
 - determining if the pressure applied by the vacuum pump of the negative pressure wound treatment apparatus associated with the second periodic timestamp is within a prescribed pressure; and

if the state of the vacuum pump associated with the first periodic timestamp is an active state and if the pressure applied by the vacuum pump of the negative pressure wound treatment apparatus associated with the second periodic timestamp is within the prescribed pressure, updating the patient compliance factor to indicate positive patient compliance.

4. The negative pressure wound treatment apparatus of claim 2, wherein the processor is configured to determine the patient compliance factor based on the state of the vacuum pump and the amount of the applied negative pressure by performing steps comprising:

- matching the first periodic timestamp with the second periodic timestamp;
- if the first periodic timestamp matches the second periodic timestamp, determining if the state of the vacuum pump associated with the first periodic timestamp is an active state;

- determining if the pressure applied by the vacuum pump of the negative pressure wound treatment apparatus associated with the second periodic timestamp is within a prescribed pressure; and

- if the state of the vacuum pump associated with the first periodic timestamp is an inactive state or if the pressure applied by the vacuum pump of the negative pressure wound treatment apparatus associated with the second periodic timestamp is not within the prescribed pressure, updating the patient compliance factor to indicate negative patient compliance.

5. The negative pressure wound treatment apparatus of claim 1, wherein the processor is configured to:

- determine a severity of the patient compliance factor;
- select one or more recipients based on the severity of the patient compliance factor;

- identify a mode of communication associated with each of the selected one or more recipients; and

- send a control signal to the communication device to transmit an alert indicative of the severity of the patient compliance factor to the selected one or more recipients according to the associated mode of communication.

6. The negative pressure wound treatment apparatus of claim 3, further comprising a communication device, in electrical communication with the processor, configured to transmit an alert indicative of the patient compliance factor to one or more remote computing devices.

7. The negative pressure wound treatment apparatus of claim 5, wherein the alert to the selected one or more recipients is an audio signal.

8. The negative pressure wound treatment apparatus of claim 5, wherein the alert to the selected one or more recipients is communicated by adjusting one or more parameters indicative of one or more of, a size, a color, and a shape of the graphical object.

9. The negative pressure wound treatment apparatus of claim 1, further comprising a patient compliance database comprising a periodic timestamp of an inactive state or a state not within a prescribed pressure, and wherein the periodic timestamp is associated with a cause indicator related to at least one of vacuum being switched off or paused, an air leakage, a loss of power, a canister not being engaged, the canister being full, an air blockage, a system error, or a reduced vacuum pressure level.