

## **Mixed Dose Use Case**

### **1 Actors**

#### **1.1 User**

1.1.1 User of syringe loading device

#### **1.2 Device**

1.2.1 Syringe loading device

#### **1.3 Bottle 1**

1.3.1 Bottle containing the first medicine to be loaded into the syringe

#### **1.4 Bottle 2**

1.4.1 Bottle containing the second medicine to be loaded into the syringe

#### **1.5 Syringe**

1.5.1 Syringe to be loaded with the mixed dose of drugs

### **2 Preconditions**

2.1 The Syringe is empty.

2.2 Bottle 1 contains enough material to satisfy User's request

2.3 Bottle 2 contains enough material to satisfy User's request

### **3 Postconditions**

3.1 The Syringe contains dose consisting of drugs from both Bottle 1 and Bottle 2.

### **4 Basic Course of Action**

4.1 User prompts Device to come out of standby mode.

4.2 Device instructs User to select single or mixed dose.

4.3 User enters selects mixed dose.

4.4 Device instructs User to confirm selection.

4.5 User confirms selection.

4.6 Device prepares for User to install Bottle 1.

4.7 Device instructs User to install Bottle 1.

4.8 User installs Bottle 1 in Device.

4.9 User instructs Device that Bottle 1 has been installed.

4.10 Device prompts User to confirm installation of Bottle 1.

4.11 User confirms installation of Bottle 1.

- 4.12 Device instructs User to provide dose amount for contents of Bottle 1.
- 4.13 User inputs dose amount for contents of Bottle 1.
- 4.14 Device instructs User to confirm dose amount for Bottle 1.
- 4.15 User confirms dose amount for Bottle 1.
- 4.16 Device prepares for installation of Bottle 2.
- 4.17 Device instructs User to install Bottle 2.
- 4.18 User installs Bottle 2 in Device.
- 4.19 User instructs Device that Bottle 2 has been installed.
- 4.20 Device prompts User to confirm installation of Bottle 2.
- 4.21 User confirms installation of Bottle 2.
- 4.22 Device instructs User to provide dose amount for contents of Bottle 2.
- 4.23 User inputs dose amount for contents of Bottle 2.
- 4.24 Device instructs User to confirm dose amount for Bottle 2.
- 4.25 User confirms dose amount for Bottle 2.
- 4.26 Device instructs User to install Syringe.
- 4.27 User installs Syringe in Device.
- 4.28 Device prompts User for command to begin dosing.
- 4.29 User instructs Device to begin dosing.
- 4.30 Device mixes contents of Bottle 1 and Bottle 2.
- 4.31 Device draws Bottle 1 dose amount from Bottle 1 into Syringe.
- 4.32 Device draws Bottle 2 dose amount from Bottle 2 into Syringe.
- 4.33 Device instructs User to remove Syringe from Device.
- 4.34 User removes Syringe from Device.

### ***5 Alternate Course of Action – User does not select loading mode***

- 5.1 Device instructs User to select single or mixed dose.
- 5.2 User does not select a dosing method.
- 5.3 Device times out and returns to standby mode.

### ***6 Alternate Course of Action – User does not confirm selection or action***

- 6.1 Device instructs User User to confirm action/selection.
- 6.2 User does not confirm action/selection.
- 6.3 Device repeats instruction to confirm action/selection.
- 6.4 If User still does not confirm action or selection, Device resets to initial state.

**7 Alternate Course of Action – User installs Bottle 1 or Bottle 2 incorrectly**

- 7.1 User installs Bottle 1 or Bottle 2 incorrectly.
- 7.2 Device informs User of error and instructs User to correct condition.
- 7.3 If User does not correct condition, Device periodically informs User of error until condition is corrected.

**8 Alternate Course of Action – User aborts dose loading procedure.**

- 8.1 User commands Device to abort procedure.
- 8.2 Device prompts User to confirm aborting procedure.
- 8.3 User confirms command to abort procedure.
- 8.4 Device resets to initial state.