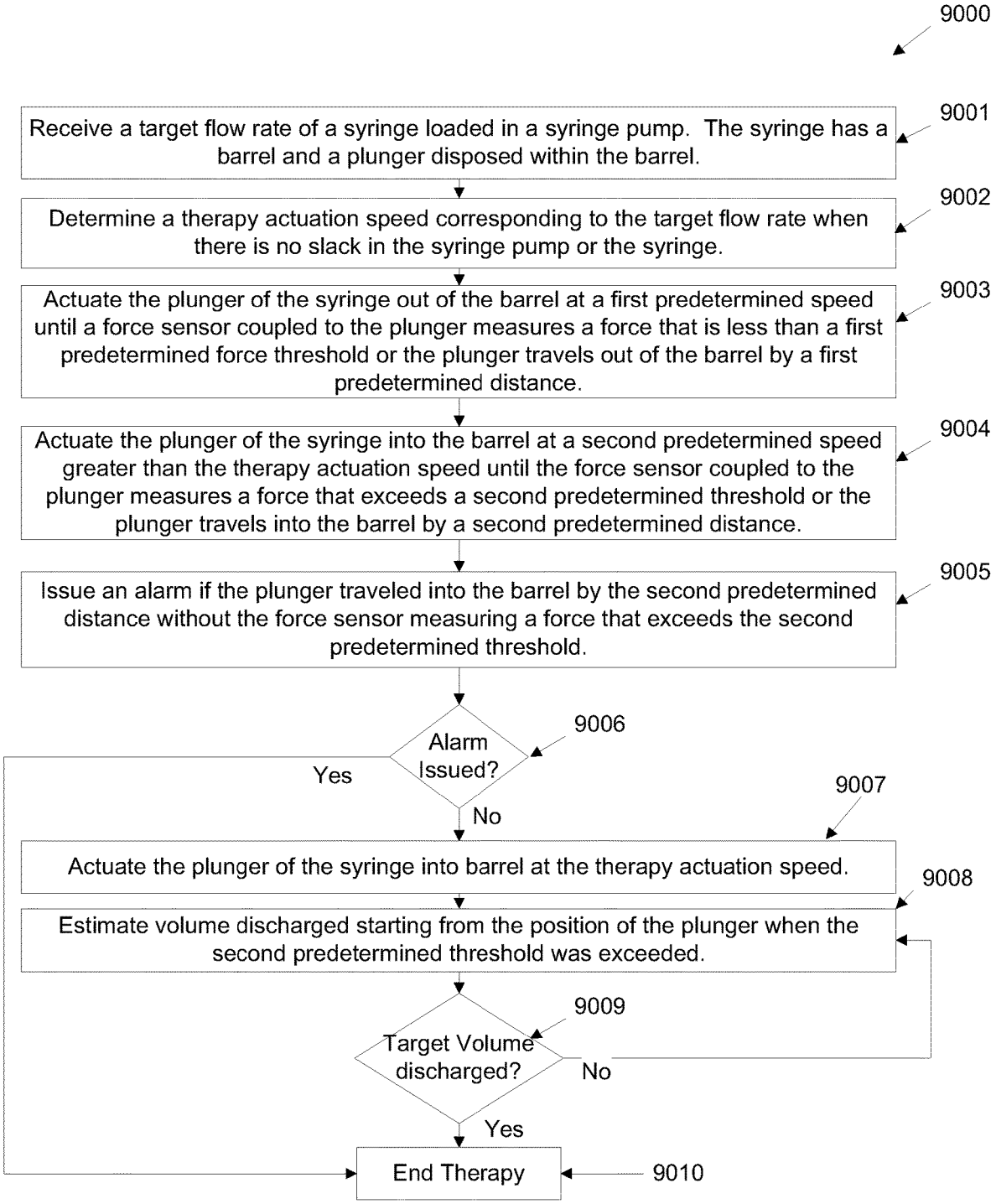
9000
Receive a target flow rate of a syringe loaded in a syringe pump. The syringe has a barrel and a plunger disposed within the barrel.
9001
Determine a therapy actuation speed corresponding to the target flow rate when there is no slack in the syringe pump or the syringe.
9002
Actuate the plunger of the syringe out of the barrel at a first predetermined speed until a force sensor coupled to the plunger measures a force that is less than a first predetermined force threshold or the plunger travels out of the barrel by a first predetermined distance.
9003
Actuate the plunger of the syringe into the barrel at a second predetermined speed greater than the therapy actuation speed until the force sensor coupled to the plunger measures a force that exceeds a second predetermined threshold or the plunger travels into the barrel by a second predetermined distance.
9004
Issue an alarm if the plunger traveled into the barrel by the second predetermined distance without the force sensor measuring a force that exceeds the second predetermined threshold.
9005
Alarm Issued?
9006
Yes
No
9007
Actuate the plunger of the syringe into barrel at the therapy actuation speed.
9008
Estimate volume discharged starting from the position of the plunger when the second predetermined threshold was exceeded.
9009
Target Volume discharged?
No
Yes
End Therapy
9010

Fig. 98