

[54] INFUSION PUMP CONTROLLER

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[57] ABSTRACT

A closed loop medication introduction system controls the rate at which medication is introduced into a patient

in response to a monitored physiological condition. The system includes a monitor for monitoring the level or magnitude of the physiological condition and an infusion pump for introducing medication for controlling the selected physiological condition into the patient at a variably controllable rate. A controller controls the infusion pump in response to monitored changes in the physiological condition of the patient. A display means displays various information about the monitored physiological condition and the introduction of medication into the patient. The controller produces a rate control signal for controlling the infusion pump in response to signals from the monitor. After an increase in the medication introduction rate, the controller blocks subsequent increases until a sufficient time has passed for the patient to respond to the increase in the amount of medication. If during this time the patient's blood pressure stabilizes, the controller increases the time allowed for the patient to respond to the increased amount of medication. If during this time the patient's blood pressure increases still further, the controller makes a small, interim rate increase. If the patient's blood pressure decreases below the preselected level, the controller decreases the medication introduction rate.

19 Claims, 4 Drawing Figures

