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(54) Title: CONFIRMATION OF CATHETER PLACEMENT WITHIN A VEIN

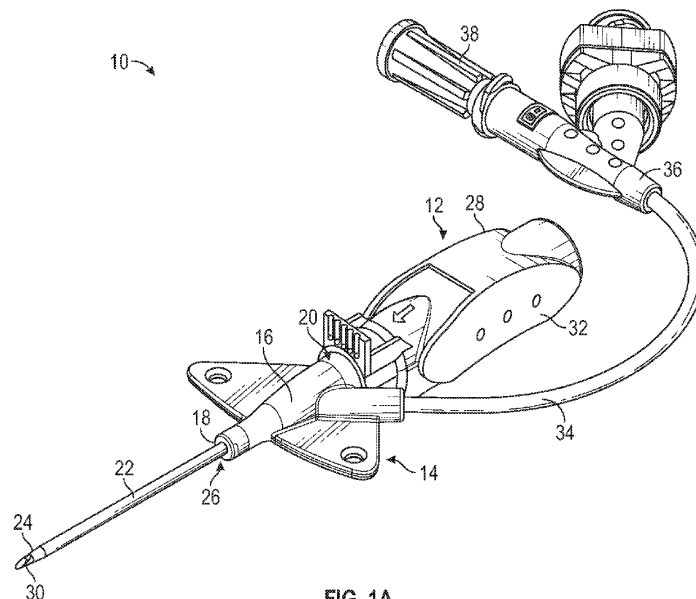


FIG. 1A

(57) Abstract: A catheter system may include a catheter adapter, which may include a distal end and a proximal end. The catheter system may include a catheter, which may include a distal end, a proximal end, a catheter lumen extending through the distal end of the catheter and the proximal end of the catheter, and an inner surface forming the catheter lumen. The catheter may extend distally from the distal end of the catheter adapter. The distal end of the catheter may include one or more holes. The distal end of the catheter may include one or more channels. The holes and/or the channels may facilitate visualization of blood flashback indicating the catheter is disposed within a vein of a patient.

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