

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
23 July 2020 (23.07.2020)



(10) International Publication Number
WO 2020/150483 A2

- (51) International Patent Classification:
A61M 25/00 (2006.01) *A61M 25/06* (2006.01)
- (21) International Application Number:
PCT/US2020/013899
- (22) International Filing Date:
16 January 2020 (16.01.2020)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
62/794,439 18 January 2019 (18.01.2019) US
16/741,911 14 January 2020 (14.01.2020) US
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(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME,

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

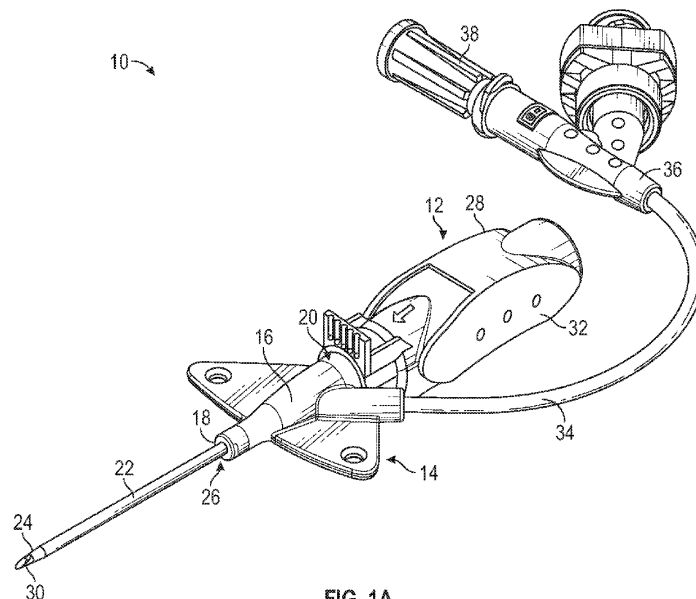


FIG. 1A

(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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MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ,
OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA,
SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR,
TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

Published:

— *without international search report and to be republished upon receipt of that report (Rule 48.2(g))*