BD Instaflash™ Needle Technology

Enhancing first attempt insertion success rate for peripheral intravenous cannulation[1]

Up to 80% of hospitalised patients receive a peripheral IV cannula[2]. In some patients, vascular access can be challenging:

Lack of visible, palpable veins[3]

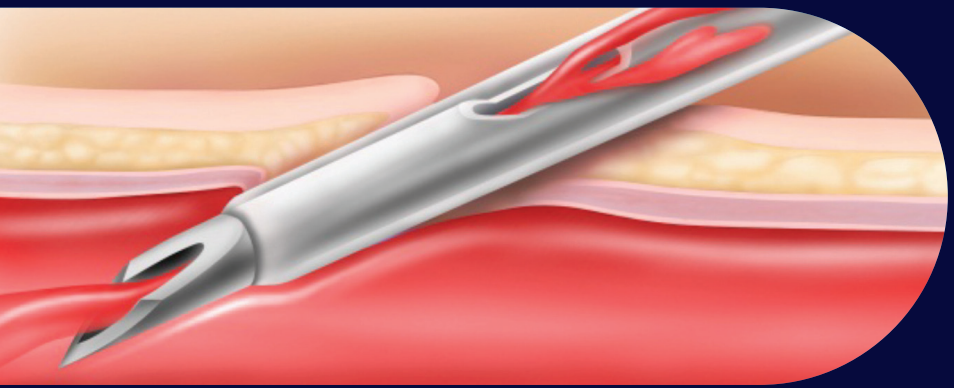
Smaller veins[3]

History of difficult intravenous access[3]

When time is of the essence, could the faster visualisation of flashback*, provided by BD Instaflash™ Needle Technology, lead to a higher rate of first attempt insertion success?

Two studies[1,3] aimed to

Compare a catheter with a notched needle (BD Instaflash™ Needle Technology) to a catheter without a notched needle to understand whether this needle technology could increase first attempt insertion success.



BD

* compared to a non-notched needle

STUDY ONE[1]

Intervention group
328 patients

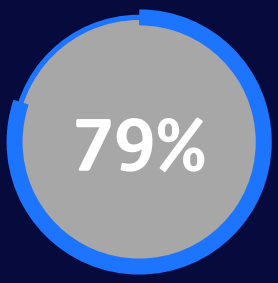
BD Venflon™ Pro Safety Needle Protected IV Cannula with BD Instaflash™ Needle Technology (notched needle)

Control group
330 patients

BD Venflon™ Pro Safety Needle Protected IV Cannula (non-notched needle)

Evidence shows that first attempt insertion success was significantly higher with BD Instaflash™ Needle Technology[1]*

First attempt insertion success rate in the group with BD Instaflash™ Needle Technology[1].



First attempt insertion success rate in the control group[1].

Considerations when choosing a peripheral intravenous catheter

- A simple switch to a notched needle could increase first attempt insertion success for your patients[1]*.
- Using a notched needle could be particularly beneficial for those patients who are at high risk of failed cannulation[1]. Not statistically significant.
- Increasing first attempt insertion success rates may potentially improve patient satisfaction, turnover and throughput in the hospital[1].

Study Limitations

Single centre study. Included only adult patients in the pre-operative holding area. Blinding was not possible as it was obvious during insertion as to which catheter had BD Instaflash™ Needle Technology.

BD

* compared to a non-notched needle

STUDY TWO[3]

Intervention group
701 patients

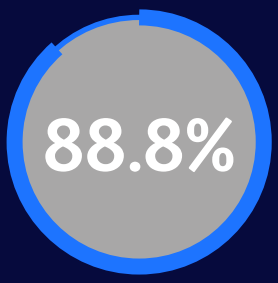
BD Venflon™ I IV Catheter with BD Instaflash™ Needle Technology (notched needle)

Control group
701 patients

BD Venflon™ IV Cannula (non-notched needle)

First attempt insertion success was significantly higher with BD Instaflash™ Needle Technology[3]*

First attempt insertion success rate in the group with BD Instaflash™ Needle Technology[3].



First attempt insertion success rate in the control group[3].

Considerations when choosing a peripheral intravenous catheter

- A simple switch to a notched needle may increase first attempt insertion success for your patients[3].
- Minimising the number of insertion attempts may result in a reduction of patient treatment costs and potentially improve patient and clinician satisfaction[3].

Study Limitations

Study included only adults. Detailed analysis of catheter characteristics and associated complications was not studied and might affect overall efficiency of first insertion success of the BD Venflon™ I IV Catheter.

BD

* compared to a non-notched needle

References

1. van Loon FHJ, Timmerman R, den Brok GPH, Korsten EHM, Dierick-van Daele ATM, Bouwman ARA. The impact of a notched peripheral intravenous catheter on the first attempt success rate in hospitalized adults: block-randomized trial. *JVA.* 2021. DOI: 10.1177/1129729821990217

2. Alexandrou E, Ray-barruel G, Carr PJ, et al. International prevalence of the use of peripheral intravenous catheters. *J Hosp Med*. 2015;10(8):530-3.

3. Seetharam AM, Raju U, Suresh K. A randomized controlled study to compare first stick success with Instaflash technology: The FIRSST study. *J Vasc Access* 2022;1-7. doi: 10.1177/11297298221080369

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