

# P19

## TOO MANY CANNULAS: A REVIEW OF IV ACCESS

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### Intro and aims

Intravenous (IV) access in children can be challenging, with a growing trend for anaesthetics to provide this service in difficult cases. In a tertiary referral centre with over 200 paediatric beds, this has led to increased pressure on the department.

Our aim was to assess the IV access requirements of the hospital over a 24hr period, to obtain evidence that could be used as part of a business case for a service to provide IV access.

### Method

An audit of all paediatric inpatients using a patient/parent questionnaire and IV cannulation charts was carried out over a 24-hour period. Information gathered included the number of cannulas, attempts at cannulation, referrals for alternative access (midline or central), duration and indication. The reason for previous cannulation removal was also obtained.

### Results

A total of 74 questionnaires were completed. Unfortunately, two wards were closed due to a norovirus outbreak on the day, which reduced numbers.

In total 60 (81%) patients had IV access in-situ at the time of questioning; of these, 18 (30%) had midline or central venous access, with the majority (50%) being midlines.

During their current hospital admission, 17 (28%) patients had 5 or more cannulas, with 6 reporting that there had been "too many to count".

Regarding the cannulas in-situ at time of questioning, the majority of were inserted on first attempt (69%), with the overall average being 1.5 attempts; this did not include 1 outlier that had 20 attempts). An anaesthetist was required in 27.5% of cannulations.

Documentation regarding planned duration of IV access showed a total 22.5% kept as a precaution, and 35% documented as "unknown". Only 2/5 (40%) of cannulas required for more than 5 days were referred for midlines.

Of the 74 patients questioned, 21 had at least 1 previous cannula during their admission, with the average cannula lasting 2.9 days, (range 4 hours to 28 days).

Previous difficult IV access was documented in 22 patients; 8 (36%) had midlines or central access.

Only 20% of cannulas were removed as "no longer required"; the rest either tissueed (51%), fell out (10%) or were causing pain/discomfort.

### Discussion and conclusion

Overall, our results supported a demand for a IV access service, and highlighted a number of patients that would benefit from this. The high number of cannulas tissueing was alarming. This could

potentially be reduced by improving education or opting for midline insertion in appropriate cases. Poor documentation regarding planned duration of IV access will hopefully be improved by the introduction of online charting.

Our results have been used to put forward a business case to improve provision of IV access at our hospital.