Vascular Access Team Review

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Aim

- Over the past decade or so an eager enterprise of vascular access activity has developed which has offered nurses as the main alternative to the traditional doctor focussed service.
- This poster aims to review nurse led vascular access team activity in a medium sized General Hospital in the UK and ensure local standards are achievable.

Standards

- Local standards were developed for peripheral cannulation that are informed by the Standards for Infusion Therapy (RCN 2005):
  - Site selection – 80% sited in distal areas of upper extremities.
  - Attempts – 95% of devices will be placed within two attempts.
  - Waiting times – 95% of patients referred will be seen within allocated time. Maximum waiting time 2 hours.
  - Phlebitis rate – 5% or less.
  - Occlusion rate – 5% or less.
  - Infiltration rate – 10% or less
  - Dislodgement rate – 10% or less.
  - Infection rate – zero.

Evidence Base

- Vascular access teams are seen as a "…highly valued resource, enhancing the quality of patient care while increasing patient satisfaction…" (Hunter 2003).
- The development of nurse led services associated with intravenous skills such as peripheral intravenous cannulation, PICC placement and tunnelled central venous catheter placement have demonstrated mastery of vascular access.
- However, the provision of an organisation wide vascular access team dedicated to the insertion of a range of vascular access devices in UK district general hospitals remains in its infancy.
- The vascular access team at Rotherham consists of two registered nurses and four clinical support workers.
- The team cover 8am – 8pm seven days a week. They cannulate more than a thousand patients a month. In addition, the team also provide a midline and PICC placement service and educational support.
- Standards are continually reviewed as part of the daily activity of the team. Results for this poster review is based on monthly data unless otherwise stated.

Discussion

- The results of this review reinforces the work of Hunter (2003). The team offer an efficient, high quality service. The majority of patients are seen within an allotted time, most are cannulated first attempt, and the ante cubital fossa is used infrequently.
- Complication rates associated with phlebitis, infiltration and infection fall within the limits of the standard. However, dislodgement and occlusion rates are extremely high. Additional work is in progress to resolve these problems, this involves the use of a short extension with clamp and needlefree device.
- We believe the Rotherham vascular access standards are a suitable base line for local and national audits and review.

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Results

Site selection

Standard met ☑

- 88.7% of cannula sited in distal areas of upper extremities .

Site	Number	Percent
Ante cubital fossa	72	6.7%
Foot	5	0.5%
Upper arm	42	4%
Upper forearm	80	7.5%
Lower forearm	344	32%
Wrist	179	16.7%
Hand	350	32.5%
Not recorded	1	0.1%

Attempts

Standard met ☑

- 97% of cannula sited within two attempts.
  - 87% 1st attempt
  - 10% 2nd attempt
  - 3% 3rd attempt

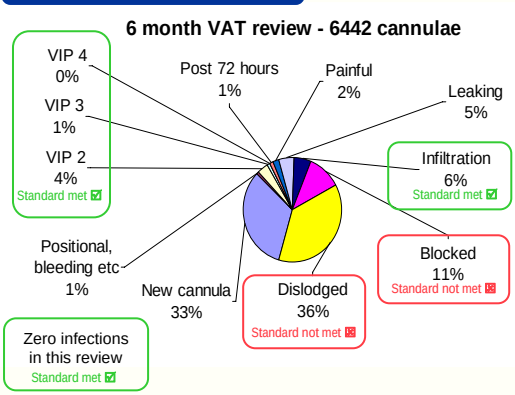
Waiting times

Standard met ☑

- 97% of high priority patients seen within thirty minutes.
- 99% of medium priority patients seen within one hour.
- 99.5% of low priority patients seen within two hours.

Priority	Within time	Out of time
High	149 within 30 min	4 out of time
Medium	237 within 1 hour	2 out of time
Low	677 within 2 hours	4 out of time

Complication rate



References

- Hunter M.R. 2003 Development of a vascular access team in an acute care setting. Journal of Infusion Nursing. 26(2), p.86-91
- Royal College of Nursing (2005) Standards for infusion therapy. RCN, London.