

Background

- IVs are inserted in 30-80% of patients and are usually required for admission.
- Catheters in the veins are the number one risk for blood stream infections. These can develop within six days of insertion and progress to bacteremia by 17.
- Safer practice including placing only when necessary, using alcohol impregnated caps, proper flushing, scrubbing the hub for at least 10 seconds before use and timely removal can decrease these infections.
- Education of proper line care practices has been shown to increase compliance to these practices.

Practice Change

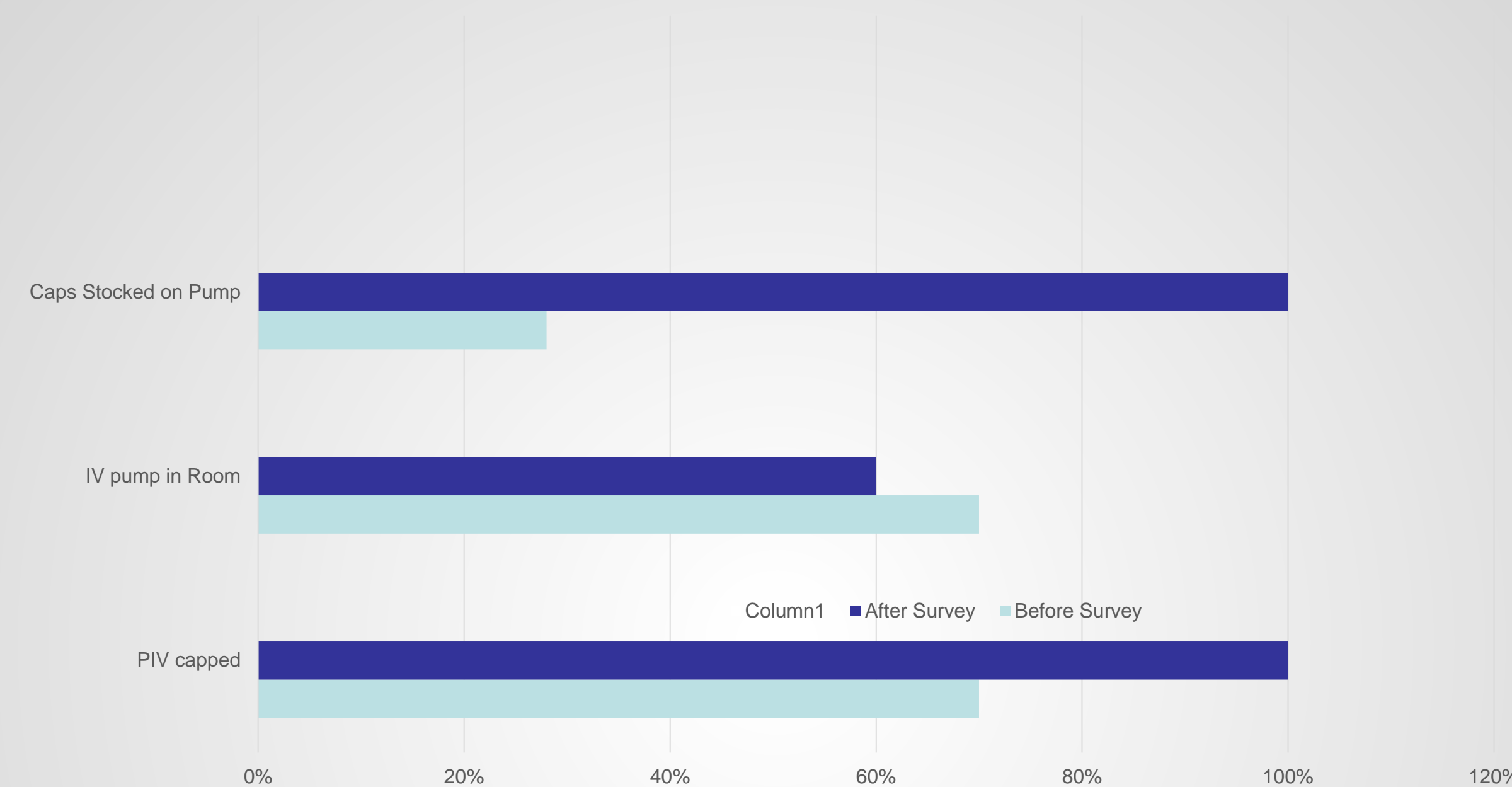
Increase the availability of alcohol impregnated caps and alcohol swabs to registered nurses (RNs) improve compliance rates to proper line care.

Methods

- Administered anonymous paper pre-surveys to RNs.
- Presented educational content to RNs via posters around the unit.
- Document the use of caps in ten rooms randomly.
- Increase the availability of alcohol impregnated caps and alcohol swabs by placing them in more accessible areas for RNs to reach.
- Document the use of caps in ten rooms randomly after change in location.

Measures and Results

RNs Using Alcohol Impregnated Cap and Alcohol Swabs Before and After Increase Availability



Survey Results

On a scale of 1-5, 1 being the lowest importance, 5 being the highest importance, how would you rate capping the end of PIV line/IV tubing?	1	2	3	4	5
Pre-Survey	9%	9%	36%	18%	27%
Post Survey	0%	0%	11%	11%	77%

	Pre-survey Yes	Pre-survey No	Post-Survey Yes	Post-Survey No
Do you always cap your PIVs/IV tubing?	63%	37%	66%	33%
During med pass do you bring alcohol caps with you to your patient room?	90%	10%	100%	0%
Do you believe alcohol filled caps are located in convenient places?	72%	28%	88%	12%
If you have an IV pump in the room do you keep alcohol filled caps hanging on the pump?	81%	19%	100%	0%
When you see a line that is not capped, do you take the time to put the alcohol cap on the end?	81%	19%	77%	23%

Summary/Discussion

- Next Steps Include:**
 - Increase availability of alcohol caps and swabs to RNs such as stocking them in patient rooms in an infection-safe manner.
 - More education on the importance of proper line care.
 - Track patient outcomes and infection rates and compare them to past infection rates before the implementation of the above steps.
- Feedback Listed on Survey:**
 - “Keep them (caps and swabs) stocked in patient rooms.”
 - “Rounding/Auditing by managers or charge or a team on patients with PIV access to assess if their capped or not.”
 - “More education.”

Conclusion

- Each alcohol cap costs roughly \$1.90. Many RNs are concerned about the cost therefore elect to only use them on central lines.
- RNs on P6 acknowledge the importance of proper line care however the availability of supplies is a large factor in compliance.
- Access to supplies is the key in increasing compliance.

References

Weingart, S. N., Hseih, C., Lane, S., & Cleary, A. M. (2014). Standardizing central Venous catheter care by using observations from patients with cancer. *Clinical Journal of Nursing Oncology*, 18(3), 321-326.

Flodgren, G., Conterno L. O., Mayhew, A., Omar, O., Pereira, C. R., & Sheppard, S. (2013). Interventions to improve professional adherence to guidelines for prevention of device related infections. *Cochran's Review*.

Sato, A., Nakamura, I., & Matsumoto, T. (2013). Peripheral venous catheter-related bloodstream infection is associated with severe complications and potential death: a retrospective observation study. *Biomedical Central*