Did introducing a dedicated IV Team reduce infections and make a *VAST* difference?

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BACKGROUND

- The Royal Adelaide Hospital has an average of 600 inpatients on a daily basis.
- Of these around 50% of ward patients have a peripheral IV insitu *(excluding ICU, ED and Theatre)
- Between 2016 to June 2018, we had an unacceptably high rate (0.4/10,000pd) of health care associated blood stream infections (BSI) related to peripheral IV lines. These were predominantly caused by *Staphylococcus aureus*.
- BSI is associated with high morbidity and mortality, increased length of stay and financial burden.
- It is recognised that an *IV Team* reduces health care associated line infections.[1]

Significant peripheral IV complication resulting in a 3 week surgery delay

WHAT WE DID

In May 2018 we introduced "VAST" *a Vascular Access Surveillance Team* to implement a bundle approach of best practice with peripheral IV lines and provide an expert patient centered consultancy service.

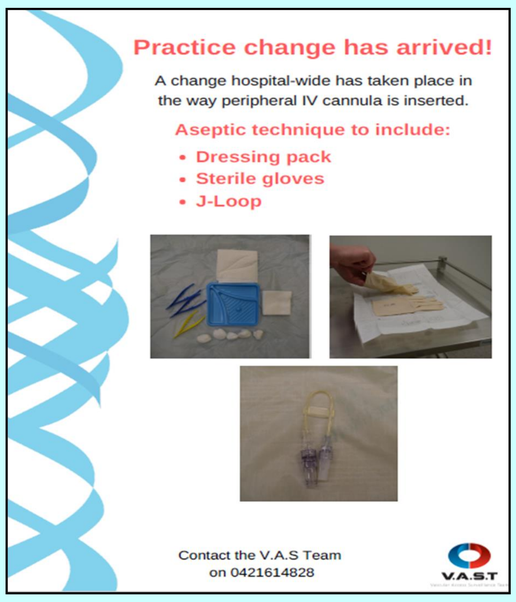
- In collaboration with the Infection Prevention & Control Unit and the Infectious Diseases Unit, 2 Registered Nurses were appointed to *VAST.*
- We undertook a whole of hospital point prevalence survey to review current practices and identify any non compliance in best practice.

HOW WE DID IT

1. We introduced practice change improvements with IV line insertion

STERILE GLOVES

DRESSING PACK



2. Education & Promotion to Staff and Patients
- ➢ Video and Media Campaign
- ➢ Tools for success:
  - Policies & Brochures
  - Audits & Reports
- ➢ Education & feedback sessions:
  - ~ 500 clinicians
  - ~ 2500 patients

3. Established 5 key performance indicators for daily patient rounding:
1. **Need for device**
2. **Insertion date on site**
3. **Dwell time <72 hours**
4. **J loop / extension present**
5. **No signs of infection**

4. Provided real time interventions and feedback on near misses
eg: non compliance with KPI's, infiltration, phlebitis, localised infections

FINDINGS

Between June 2018 to November 2018

➢ **Improvements in peripheral IV management**

- ❖ **50% ⬆ in documenting insertion date on site**
- ❖ **Redundant PIVDs from 14% ⬇ 0.3%**
- ❖ **Insitu >72 hours 9% ⬇ 0.3%**
- ❖ **Signs of infection 1.6% ⬇ 0.6%**
- ❖ **No J loop/extension 28% ⬇ 11%**

➢ **Over 5300 patient reviews**

➢ **1200 interventions on "near misses" of non-performance with KPI's**

➢ **Improved practice established**

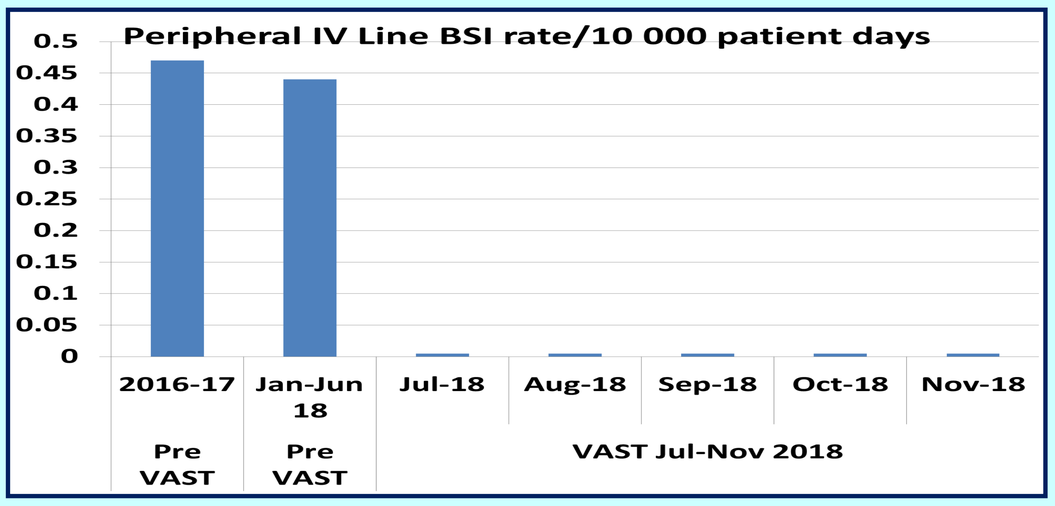
➢ **Collaboration with University on standardised training**

➢ **Consumer confidence enhanced**

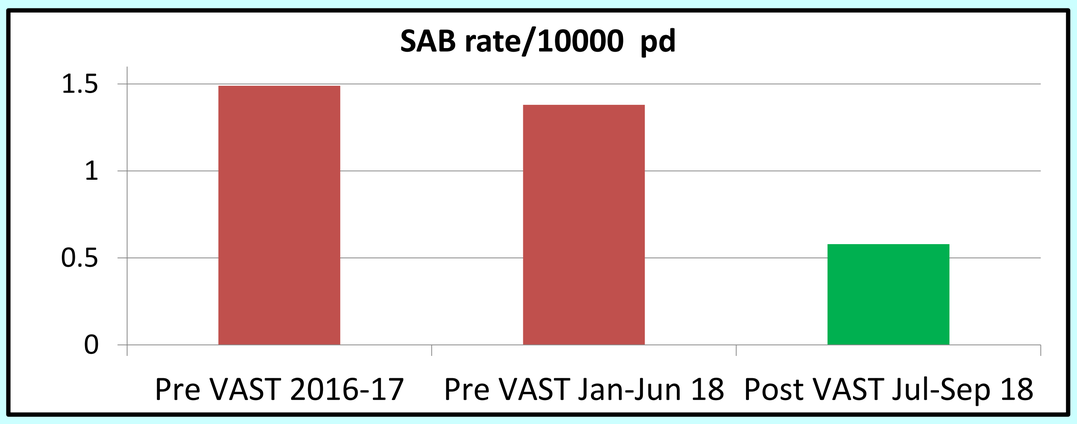
CONCLUSION

The Difference Was VAST

- **NO peripheral IV infections.**



- **Improved patient outcomes**
- **~ $85,000 of healthcare spending saved over 3 months[1] [2]**
- **Overall compliance with KPI's from 20% to 75%**
- **SAB rate decreased 58%.**



References:

1.Centres for Disease Control. 2011. Guidelines for the Prevention of Intravascular Catheter-Related Infections.

2.NHMRC (2019) Australian Guidelines for the Prevention and Control of Infection in Healthcare. Commonwealth of Australia

3.Australian Commission on Safety and Quality in Health Care (2017 2nd edn.), National Safety and Quality Health Service Standards, ACSQHC, Sydney