“Dialysis Care : It is Not Just a Care”

Quality and Equity of Care to Dialysis Patients With Permanent Central Venous Catheter

Background

In the state of Qatar, Hamad General Hospital (HGH) is the main provider of hemodialysis service, approximately 530 patients receiving hemodialysis treatment. Arterio-Venous Fistulas (AVF) or Arterio-Venous Grafts (AVG) is the first vascular access of choice for hemodialysis patients, however if this option is not indicated, central venous catheter (CVC) is used instead. 38% of HGH dialysis patients are receiving dialysis via CVC.
Maintaining a long-term functioning catheter for dialysis patient is a big challenge for healthcare providers as the patients on CVC- based dialysis treatment are more prone to infection and thrombosis events and the quality of their life is largely determined by the quality of the vascular access.

Dialysis access management model in HGH dialysis units was developed in 2013 to achieve a high quality and equity care for all the hemodialysis patients

Aim

Reduce the number of CVC-dependent dialysis and promote fistula first approach

- Control CVC–related infection and complications
- Improve dialysis adequacy
- Reduce access-related hospitalization
- all will be reflected on better patient’s quality of life and less health care burden

Intervention

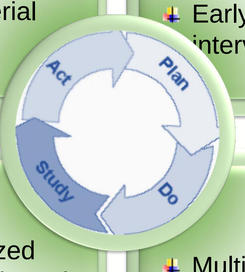
- Assigned vascular access coordinator to establish patient’s vascular access status and needs, and organize appropriate interventions.
- Patient and family education regarding permanent access - multidisciplinary team/educational materials
- Implementing fistula first approach.
- Access care-related training program for dialysis staff
- Initiate the pre-dialysis access care program – for early planned access

Act

- Barrier to reach the target was identified and action plan conducted.
- Continue to maintain catheter patency.
- Introduce new material according to CDC Guidelines.

Plan

- Increase the patient awareness and knowledge
- Improve catheter management care.
- Early referral for intervention



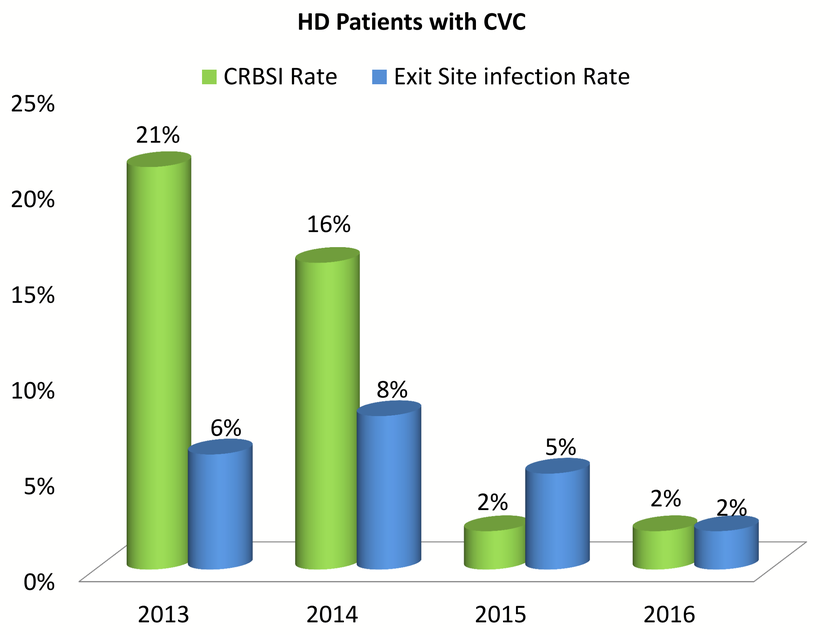
Study

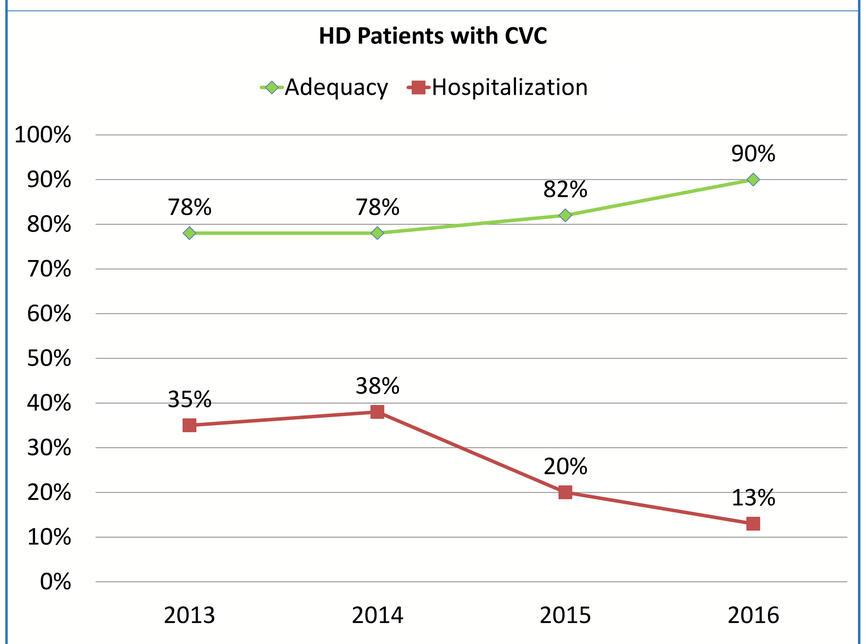
- Results were analyzed
- The study was conducted Among 197 HD patients and data was tracking to calculate the effect of changes

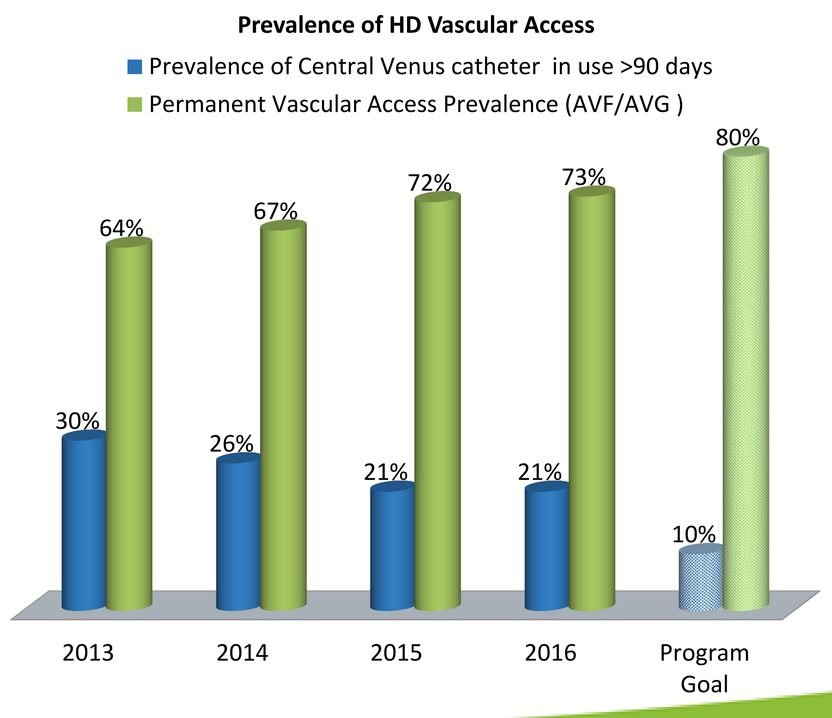
Do

- Multidisciplinary team developed
- Clinical care pathway and policy for catheter care was developed
- Patients self-care evaluation was conducted

Result







Measurement outcome

- Prevalence of Permanent vascular access increased by 9%
- Prevalence of CVC in use >90days decreased by 9 %
- CRBSI rate reduced by 19%
- Exit site infection rate reduced by 4%
- Hemodialysis adequacy increased by 12%
- Hospitalization rate reduced by 22

Conclusion

- Our Project showed major improvement regarding:
  1. - Fistula First approach
  2. - Dialysis-related Infection rate
  3. - Dialysis adequacy
  4. - Access-related hospitalization

Improvement Team

- **Project Sponsor:** **Dr Fadwa Al-Ali**, Director of HMC Dialysis Services
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References

- KDOQI 2006 Updates Clinical Practice Guidelines and Recommendations.
- CDC Guidelines for the Prevention of Intravascular Catheter-Related Infections, 2011
- HMC Vascular Access Management in adult hemodialysis population CP 111.

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