

# Increasing Efficiencies and Decreasing Cost Per Case Integrating the Clinical Nurse Leader Role in the Care Delivery Model

Patricia T Forsberg, DNP, MBA, RN, NE-BC University of California, San Francisco Medical Center

## Background

Inefficiencies and rising costs of health care delivery are two of the many challenges facing hospitals today. University of California San Francisco Medical Center is a 600 bed tertiary care facility serving complex patient populations. The many silos that exist within the macro system make efficiency a challenge. The Clinical Nurse Leader (CNL) role, developed by the American Association of Colleges of Nursing (AACN), was piloted on a 45 bed cardiovascular step down unit at UCSF Medical Center. A service line approach was utilized for each of the two CNLs, one for medical cardiology patients and the other for vascular surgery patients.

The CNL is defined as the lateral integrator of care coordinating care to ensure seamless, safe, and quality delivery of care. Unlike the specialized roles of the CNS and the NP, the CNL role is designed to identify and correct gaps in communication, create systems that reduce and eliminate fragmentation of care, and view the patient as a whole (Bender, 2015). Additional roles include overseeing care coordination; providing direct patient care in complex situations; bringing evidence-based practice to ensure patients benefit from the latest innovations in care delivery; evaluating patient outcomes; assessing high-risk patients; and changing the plan of care when necessary (Williams & Bender, 2015). The complexity of the current and future healthcare environment necessitates that nursing capitalize on the assets of all these roles.

While the CNL is a relatively new role in advanced practice nursing, some literature does suggest evidence for its effectiveness. For example, a study looking at the impact of the CNL role in the emergency department demonstrated an increase in patient allergy reconciliation from 20.1% to 76.9% (Perry, 2013). The same study found that a perioperative CNL was able to increase the percentage of on-time surgery starts from 12% to 89% which improved patient satisfaction scores from the 84<sup>th</sup> to 97<sup>th</sup> percentile (Perry, 2013).

Another study looking at the impact that CNL's have on outcomes and cost savings showed that a post-surgery transfusion protocol implemented by a CNL led to a 20% decrease in blood transfusion. This, in turn, impacted costs of care by decreasing length of stay and the cost of the blood product itself (Hix, et al., 2009).

It is important to note that the CNL is not intended to replace any role but is complementary to existing nursing roles.

## Method

The existing nursing staff on 10CVT included two Master's prepared Clinical Nurse Leaders (CNLs). One was an experienced RN who graduated from University of San Diego and the other was a CNL from University of San Francisco, hired as a new grad RN just two years prior. Both of these RNs worked as bedside RNs on the unit and had not had experience as a CNL prior.

A 6 month pilot program to implement these roles in two service lines from October 2015 to March 2016. The service lines chosen were Vascular surgery and Cardiology medicine. The roles were reviewed according to AACN guidelines, outcome measures were identified, and a job description was drafted. Each CNL worked a Monday to Friday, 5 day/week, 8 hour schedule on the unit and followed their cohort of patients throughout their hospital continuum.

The following outcome measurements were established at the start of the pilot:

- Efficiencies
  - Discharge by Noon
- Cost Reduction
  - Length of Stay
  - Decreased 30 Day Readmissions
- Patient Experience

## Outcomes

### Discharge by Noon (goal being 20% of patients)

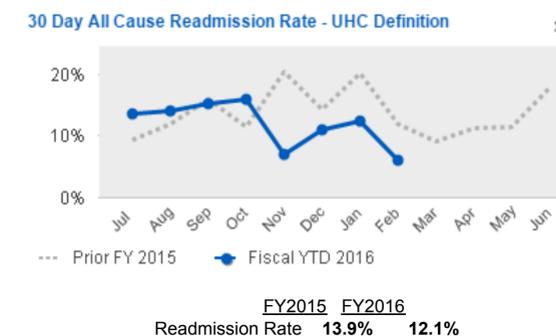
- Vascular consistently exceeded the 20% goal during the pilot period with a range of **27% to 39%** discharges by noon
- Cardiology achieved **20% to 23%** discharge by noon in February and March 2016
- 10CVT as a whole reached **20% goal** for the first time in March 2016 compared to 10.9% for FY2015

### Length of Stay (LOS)

- Vascular LOS was **6.61 days** in Q3 of FY 2016 which is a decrease from the previous 12-month average of **7.24 days**
  - The combined benefit of a drop in LOS and rise in DC by noon supports a significant **increase in vascular case volume and revenue**
- Cardiology LOS did not decrease potentially due to the recent implementation of the Clinical Decision Unit (CDU) which now receives short stay cardiology patients that would have previously been admitted to 10CVT

### Decreased 30 day Readmissions

Vascular and Cardiology on 10CVT - combined readmission rates



## Patient Experience

Vascular patients reported an increase in the following HCAHPS domains:

HCAHPS Domain	Q4 FY2015	Q2 FY2016	Q3 FY2016
Communication with nurses	74.5%	95.8%	96.7%
Communication about medicine	77.7%	78.6%	85.7%
Pain management	76.9%	71.4%	95.0%
Response of hospital staff	46.4%	72.9%	95.0%

Cardiology patients reported an increase in the following HCAHPS domains:

HCAHPS Domain	Q4 FY2015	Q2 FY2016	Q3 FY2016
Discharge information	88.5%	82.9%	90.4%

## Conclusions

Although positive outcomes were met and reflected best practice from the literature, financial constraints did not allow for the additional 2 FTEs required to sustain the program. Overall response from service line faculty was positive and we are optimistic that this delivery model can be implemented in the future.

## References

- Bender, M. (2015). Conceptualizing clinical nurse leader practice: An interpretive synthesis. *Journal of Nursing Management*. Advance online publication. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1111/jonm.12285/abstract>
- Williams, M., & Bender, M. (2015). Growing and sustaining the clinical nurse leader initiative. *The Journal of Nursing Administration*, 45(11), 540-543 doi: 10.1097/NNA.0000000000000260
- Perry, A. (2013). The clinical nurse leader: Improving outcomes and efficacy in the emergency department. *Journal of Emergency Nursing*, 39(4), 334-339. doi: 10.1016/j.jen.2011.10.001
- Hix, C., McKeon, L., & Walters, S. (2009). Clinical nurse leader impact on clinical microsystems outcomes. *The Journal of Nursing Administration*, 39(2), 71-76. doi: 10.1097/NNA.0b013e318195a612



University of California  
San Francisco