Implementation of a Comprehensive Database to Achieve Impact and Value

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Introduction

The Inova Health System is a not-for-profit healthcare system based in Northern Virginia that serves more than 2 million people each year from throughout the Washington, DC, metro area and beyond. Inova is a comprehensive network of hospitals, outpatient services and facilities, primary and specialty care practices, and health and wellness initiatives.

Palliative Care (PC) teams at the five Inova hospitals are at different stages of maturity. Two are established. One is staffed and active. One has just hired support staff for the existing providers, and the last has providers but no support staff at this time.

One of the established sites achieved Disease Specific Certification for Advanced Palliative Care from the Joint Commission in May 2012 and re-certification in May 2015

Problem Statement

The PC dashboard was developed to present operational, process, and clinical outcomes the hospitals, system leadership, & PC team members. It demonstrates operational and clinical outcomes, pain mitigation, & length of stay. This data provided evidence to improve staffing and compliance with PC-specific documentation. It also indicated opportunities for focused efforts to increase penetration of PC services and completion of Advanced directives, and to develop strategies to increase PC team integration with clinical and medical staff at each location to establish a more dynamic interdisciplinary group focus on patient care.

The dashboard report helped identify potential opportunities in establishing PC as a care standard embracing individual hospital culture, with the ultimate goal of establishing PC service as an integral quality-of-life service for seriously ill patents and patients with poorly controlled symptom burden. Achieving this is assessed used outcomes reported in terms of pre and post length of stay, readmission rate and PC penetration rates.

Project Goals

Measuring impact and value to identify barriers to best-practice care by leveraging technology:

- Reduce hospital length of stay (LOS), measured in EMR data reports
- Reduce symptom burden, measured through PC Docflow data daily

Create health system strategies to:

- Identify barriers to enculturating palliative care into all operating units
- Establish efficient staffing patterns
- Integrate palliative care to community and healthcare settings

Improvement Methods

- Fund staffing for 2 different models (employment and collaborative) to test the model results including: Medical Director, Nurse Director, Social Worker/Therapists, Chaplaincy for individual teams and employing or arranging for 24/7 coverage by MDs and NPs at all locations.
- Enlist cooperation of all palliative/hospice providers with hospital privileges to use the platform designed for Palliative Care within the Health System and create consistency in quality of care
- Arrange 24/7 coverage
- Generate outcomes data from EMR to support directives to medical colleagues

Improvement Achieved and Outcomes

This systematic "team" approach to platform development led to:

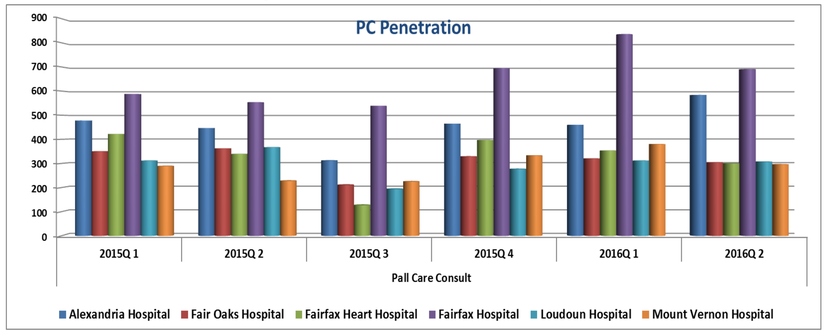
- Directed education to promote enculturation of palliative care as a standard of care
- Empowerment of clinicians to evaluate patients for recommendation and care

Consistent growth in Palliative Care consults

- Earlier consults to the team
- Improved access to palliative care for patients with serious life-limiting illness
- Improved psychosocial support for patients and families
- Reduction in length of stay

Education about the disease specific benefits and burdens of options of care

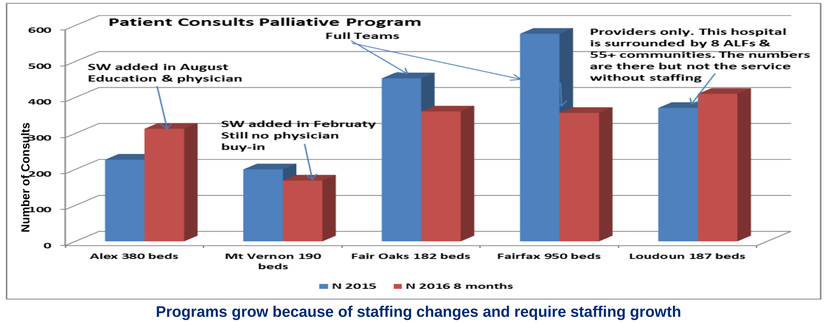
- Reduction in unplanned readmissions
- Reduction in unnecessary orders for medical tests and procedures



Change in patterns of ordering tests and procedures to "only if you will do something with the result" is influencing medical treatment throughout the system

- Cost avoidance for inappropriate care
- Patient comfort and consideration

As programs grow the staffing needs have to be anticipated or the team will not be able to meet the demands of the patient load and will fail to provide the anticipated level of interdisciplinary care



Programs grow because of staffing changes and require staffing growth

Outcomes (cont'd)

The multisite data demonstrated the importance of a complete team. Cost avoidance has been validated against DRG codes receiving PC or not. The data below are from established teams with consistent cost avoidance.

P C consult earlier in the inpatient stay is correlated with a shorter LOS consistently in both years

Quartile of Expected LOS that PC Consult Took Place	Admissions	Avg Age	CMI	Observed ALOS	CMS Expected ALOS	Obs:CMS Expected Ratio	Premier Expected ALOS	Obs:Premier Expected Ratio	Observed Total Days	Expected Total Days	Net Opportunity Days	Gross Opportunity Days
1st Quartile of ELOS	938	71	2.321	7.6	7.5	1.02	7.9	0.97	7,141	7,028	113	2,076
2nd Quartile of ELOS	839	72	2.098	8.0	6.8	1.17	7.2	1.12	6,731	5,734	997	2,209
3rd Quartile of ELOS	550	72	2.172	9.1	7.0	1.31	6.9	1.31	5,003	3,827	1,176	1,722
4th Quartile of ELOS	345	74	2.208	10.3	7.0	1.47	7.1	1.45	3,558	2,416	1,142	1,291
Grand Total	2,672	72	2.206	8.4	7.1	1.18	7.4	1.14	22,433	19,005	3,428	7,298

Quartile of Expected LOS that PC Consult Took Place	Admissions	Avg Age	CMI	Observed ALOS	CMS Expected ALOS	Obs:CMS Expected Ratio	Premier Expected ALOS	Obs:Premier Expected Ratio	Observed Total Days	Expected Total Days	Net Opportunity Days	Gross Opportunity Days
1st Quartile of ELOS	1,170	71	2.276	7.0	7.5	0.94	7.9	0.89	8,194	8,746	(552)	2,107
2nd Quartile of ELOS	895	72	1.931	7.7	6.6	1.15	7.0	1.09	6,854	5,946	908	2,114
3rd Quartile of ELOS	620	73	2.302	9.7	7.3	1.33	7.3	1.33	5,983	4,498	1,485	2,050
4th Quartile of ELOS	422	73	2.336	10.4	7.4	1.40	7.3	1.42	4,382	3,127	1,255	1,481
Grand Total	3,107	72	2.190	8.2	7.2	1.14	7.4	1.10	25,413	22,317	3,096	7,752

Recommendations

Identifying opportunities of care using data enlists administrative support for the team process. Clarification of the program goals leads to gaining support among those who would request consults by the team. The progression of positive data keeps them engaged. Focusing on identifying educational needs of all participants in the care process reduces referral inhibition for distrusting medical providers. Being able to produce data supporting your claims provides a picture worth hours of conversations.

As a program grows it must be continually re-evaluated for staffing requirements to support the obligations of the team to furnish timely support. Community education is as important as clinical support to create enculturation for best practice.

Most important, when you say you will do something make sure the plan in effect will support the promised action.

References

American Academy of Hospice and Palliative Medicine (AAHPM) and Hospice and Palliative Nurses Association (HPNA). 2014. Top 10 measures that matter. http://aahpm.org/uploads/education/AAHPM15_MWM_Handout_Clinical_FINAL.pdf

Cassel, J.B., Kerr, K.M., Kalman, N.S., Smith, T. J. (2015). The Business Case for Palliative Care: Translating Research into Program Development in the U. S.,American Academy of Hospice and Palliative Medicine. Vol 50 No 6 December 2015.

Hanson LC; Rowe C; Wessell K, et al. Measuring palliative care quality for seriously ill hospitalized patients. *J Palliat Med*. 2012;15:798-804.

Schenck AP, Rokoske FS, Durham D, Cagle JG, Hanson LC. Quality measures for hospice and palliative care: piloting the PEACE measures. *J Palliat Med*. 2014;17:769-775.

Tangeman, J.C., Rudra, C. B., Kerr, C. W., Grant, P. C. (2014). A Hospice-Hotspital Parnership: Reducing Hospitalization Costs and 30-Day Readmissions among Seriously Ill Adults. Journal of Palliative Medicine, Vol 17, Number 9, 2014.

Center to Advance Palliative Care (CAPC). 2015. Accessed on September 30, 2016. https://www.capc.org/