

Readmission and Cost-Saving by the Post-Discharge Clinic (PDC) Transitional Care Interventions

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Problem

Healthcare institutions face a narrow operating budget to provide patient care, which presents even more challenge when investment of research and medical education are delivered in academic institutions regardless of donations and grants. Centers for Medicare and Medicaid Services (CMS) evaluate healthcare institutions based on efficiency, quality and customer experience—in other words, length of stay, readmission rate and patients’ perception of the care they received. The effectiveness of decreased readmission is based on multiple variables, and one of the main drivers is a strong post-discharge transitional program. Decrease of readmissions has been one of the main goals of the UCMC Annual Operating Plan. UCMC readmission rate has not achieved UCMC benchmarks but has shown a progressive improvement; however, it is still a significant challenge for high-risk population in teaching and non-teaching general medicine services.

Goal

To provide a well-designed transitional care program through the PDC that crosses service lines and evaluate its impact in the rate of readmission and emergency department (ED) visits as well as cost-saving associated with this transitional program.

Innovation

We developed a post-discharge clinic (PDC) that encompasses transitional interventions for the UCMC without major cost to the institution based on leadership and networking with internal stakeholders and providers willing to provide transitional care. The transitional care interventions provided by the PDC were strategically designed, implemented, and iteratively evaluated, accounting for organizational goals, assessment of inpatient care processes, risk of readmission, inpatient and primary care service benchmarks, inpatient and outpatient scheduling processes, financial limitations, internal and external stakeholder input, and the diverse population seeking care at UCMC. The Hospitalist Section PDC was created as a pilot project. From then until now, we have been able to expand and operate with the collaboration of hospital leadership and internal resources.

Patients in the general medicine units with a higher risk of readmission who are unable to see their primary care provider (PCP) within 7 days of discharge are prioritized to be seen in the PDC. Those with lower risk of readmission are scheduled in the PDC within 14 days of discharge if they are no longer able to see their PCP. After patients are discharged from the hospital, they receive a 48-hour transitional post-discharge call. Then, during their PDC visit, patients receive comprehensive disease and medication education, medication reconciliation, opportunities to discuss any adverse events, evaluation of their social support, and referral to other services.

We evaluated the cost of operations, the decrease of readmission and ED return visits, saving bed-days and cost-saving associated with the PDC interventions.

Results

Readmission

- PDC readmission rate for high risk of readmission category within 30-days post-hospitalization: 23%
- No PDC readmission rate for high risk of readmission category within 30-days post-hospitalization: 36%

Emergency Department (ED) return visits

- PDC ED return rate for high risk of readmission category within 30-days post-hospitalization: 35%
- No PDC ED return rate for high risk of readmission category within 30-days post-hospitalization: 50%

Estimated Cost-saving

Readmissions:

- 2023-2024 Estimated number of patients not being readmitted who attend the PDC within 30 days post hospitalization: 33.65 patients
- Average length of stay/bed-days) per patient: 6 days
- 2023-2024 Total number of bed-days saving $33.65 \times 6 = 202$
- Direct cost per patient day of hospitalization: \$2,072.00
- 2023-2024 Estimated total cost-saving: $202 \times 2072 = \$418,544.00$

ED return visits:

- 2023-2024 Estimated number of patients who did not return to ED who attend the PDC within 30 days post hospitalization: 39.8 patients

Direct cost per patient ED visit: Data is being calculated by UCMC business operations

Per Patient Day												
Direct Cost	Direct Fixed Equipment Depreciation	Direct Fixed Labor & Benefits	Direct Variable Covid Costs	Direct Fixed Covid Costs	Direct Fixed Purch Services Occupancy & Other	Direct Variable Drugs	Direct Variable Implants	Direct Fixed Provider Comp & Benefits	Direct Variable Labor & Benefits	Direct Variable Purch Services & Other Costs	Direct Variable Supplies	
2,072	38	220	19	0	53	313	5	0	1,202	37	185	0

Conclusions

Urgency to improve readmissions with a limited budget generates innovation to achieve goals for the organization. The PDC strategic transitional program produced value, improving readmissions and cost-saving to the organization. The transitional interventions through the expansion of the PDC can become one of the main institutional drivers in the reduction of readmissions and ED return visits.

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ED Returns and Readmissions by Risk Group

Flag Completed PDC Visit After Admission	HOSPITALR..	Numer..	Denomi..	Rate
No	LOW	557	6,710	8%
	MED	614	4,410	14%
	HIGH	687	1,886	36%
	Null	1,335	15,150	9%
Yes	LOW	16	232	7%
	MED	18	117	15%
	HIGH	9	40	23%
	Null	5	120	4%

ED Returns and Readmissions by Risk Group

Flag Completed PDC Visit After Admission	HOSPITALR..	Numer..	Denomi..	Rate
No	LOW	1,083	6,710	16%
	MED	955	4,410	22%
	HIGH	938	1,886	50%
	Null	2,500	15,150	17%
Yes	LOW	33	232	14%
	MED	28	117	24%
	HIGH	14	40	35%
	Null	15	120	13%