

Data Analysis and Quality Improvement Initiative Proposal

Quality Improvement of Interprofessional Care

Introduction

Every health care entity aims at increasing value proposition to its clients and stakeholders through continuous improvements. This implies that for a health care entity to be competitive in the long run there is need for continuous quality improvement. One of the fundamental aspects of quality improvements initiatives is the ability to enhance patient's safety and avert negative health consequences such as comorbidities or fatalities (Coles et al., 2017). The scope of quality improvement incorporate evidence based perspective where changes are made based on collected data. Therefore, data collection and analysis form a key ingredient to successful quality improvement. In this aspect, it's possible to measure collected data and quantify needs arising from such evidence. The importance of undertaking quality improvements based on data is to facilitate effective changes that will bring about quality improvements. In most cases, data analysis is done by documenting available hospital evidence and comparing the outcomes with national benchmark averages. Such comparison enables a healthcare entity to assess its performance in meeting quality improvement goals. Besides, dash board metric analysis enables understanding the available gaps and how to take corrective actions to improve such undertaking. The scope of this paper is to analyze data from Villa Health's dashboard metric on adverse event reporting in the hospice unit. This aspect will enable for recommendations on quality improvement initiative at the health care entity.

Data analysis

The data presented from Villa's Health dashboard incorporates metrics related to monthly adverse events for the years 2014 and 2015 in the hospice unit. From a critical analysis of the data, it's evident that all the metrics presented indicated near-miss situation. Besides, it's evident that there are some instances that culminated into patient harm or

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exacerbations. The data presented incorporates four areas including length of stay less than seven days, IPU admission, pain level 7-10 more than 24 hours and inadequate symptom relief more than 24 hours. These areas of focus are also included in all periods under analysis. From the comparison of dashboard with the national benchmark metrics, it's evident that the health entity fails to offer quality care to their patients in the areas of interest. This leads to poor overall outcomes and therefore, needs for improvements.

From the foregoing analysis, its critical to seek ways of improving these areas through data monitoring as it leads to reduced quality of care in the long run. Also, it is prudential to ensure that patient safety is improved through quality improvement. Delivery of quality care affects the sustainability of healthcare entity in different aspects (Yang & Gao, 2018). This aspect affects the perception of the public concerning the entity. For example, patients will keep away from a healthcare entity that has been implicated for patient's fatalities or poor health services. In a similar manner, stakeholders will be attracted by an entity that is performing better through improved quality services (Borgonovi et al., 2018). Stakeholders would also be more concerned if there are increasing numbers of adverse events. This implies an inherent deficit in quality of care delivered and therefore, needs for more improvement. From the assessment of the dashboard, it's evident that there were 50 patients with a length of stay less than seven days in the first year and 46 patients in the subsequent year. The number of patients receiving inpatient unit admission was 47 in 2014 and 27 in 2015. The number of patients in 2014 with pain level 7-10 more than 24 hours was 13 and 17 in the subsequent year. The last parameter was related to inadequate symptom relief more than 24 hours. In 2014, there were 13 patients while in 2015 there were 22 patients.

The data presented can be analyzed systematically to determine the quality improvement needs. For the first metric, the length of stay is a critical parameter in determining overall patient recovery and quality care. According to Allsop et al., (2018),

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duration of a patient under hospice care determine their overall quality of care. For example, an increase in length of stay in hospice care implies that a patient will receive high quality patient centered care. Kumar et al., (2017) note that a length of stay (LOS) of 8-23 days was adequate to allow for pain management or subsequent pain control. In a similar perspective, Mulville, Widick and Makani (2019) corroborated with these studies by noting that that an average of 17 days is critical to facilitate delivery of evidence based care and reduction of accompanying exacerbations by 16%. The statistics attained from Villa Health implies that having a large number of patients under hospice care and staying less than 7 days leads to reduction in quality of care. Besides, the health entity would not be able to confer holistic care given the short time frame.

For the IPU admission rate, there is a significant improvement in 2015 compared to the previous year. However, the admission rate of 27 is still an issue of concern considering that it's the objectives of hospice care to offer patient comfort during their end of life. The statistics show that there are still many patients who are admitted to the health facility which is an issue of concern. Coyne, Mulvenon and Paice, (2018) note that it's the obligation of a hospice unit to offer holistic care to patients at the end of life. From assessment of pain level 7-10 more than 24 hours, there is an increase by 4 in 2015 compared to 2014. This implies that there is need for assessing care delivery approaches in the setting. There is still a high number of patients with inadequate symptoms relief more than 24 hours in both tears. These statistics illustrate increased limitations by the healthcare staff to offer quality care to the patients and wholesome hospice care. Healthcare professionals must offer the optimum care to patients at the end of life including management net of vital symptoms and exacerbations. From the statistics provided for the health facility, it's evident that the staffs in the facility are not able to give their patients wholesome care

QI initiative proposal

To address the challenge presented in the healthcare entity, there is need for quality improvement initiatives. These initiatives will increase value proposition for both the patients and stakeholders. These initiatives will incorporate staff education on offering wholesome care to the patients at the end of life and increasing staff number to ensure adequate care. Besides, the scope of educational intervention will incorporate educating the community on the need to adopt a healthy life to increase overall health outcomes. According to Hui et al., (2018), providing continuous education and training to caregivers in a hospice setting leads to improved relationships within the healthcare setting. Being in a hospice unit for more than 14 days leads to reduced admission in intensive care units (Wang et al., 2017). The implications of these findings are that the facility will need to increase the LOS to reduce accompanying IPU admission, pain level and inadequate symptom relief more than 24 hours. With increase in staff training and education on giving a wholesome care for patients in hospice unit, the caretakers will be aware of effective course of action for different scenarios for their patients.

The facility needs to set up caregiver training unit whereby the specialists can refresh their skills and competence in delivering hospice care. The scope of this unit will also include educating the community on the need to bring in a patient for hospice care in a timely manner. Previous researches have shown that most of the people are referred to hospice in the last days of their lives. Late referral to a hospice setting has been implicated for increased fatalities. A study conducted by Holden et al., (2020) in a hospice setting illustrated that 16.2% of patients cited to have been referred to a hospice unit late. According to the National Quality Forum, care takers in a hospice setting are obliged to openly talk with their patient's concerning their end of life for patients with less than one year of living. One of the critical aspects in this undertaking is continuous education on hospice options to a patient to allow them make optimal choices. The implications of this directive are that the care takers in the

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healthcare entity ought to discuss hospice with the patients when time arises to reduce wait time for the patients. In this perspective, the identification of a patient in need of hospice care will be essential to increase patients' readmission and pain level during their stay at the hospice facility. The staff at the health facility will therefore, need to hold education sessions with the local providers to increase their skills and competence for early referrals.

Studies have shown that the relationship barrier between a caregiver and a patient play a critical role in relief of symptoms (Ma et al., 2019). This barrier needs to be avoided in the facility to facilitate improved delivery of quality care. This aspect leads to better communication between a patient and healthcare staff leading to improved quality of care reducing inpatient admission. Training on improvement of relationship will also be critical in improving delivery of quality care. Despite a plethora of information concerning hospice care, there are grey areas concerning the relationship between expertise of care takers and LOS in a hospice unit. This is an area for further research to facilitate delivery of wholesome care for patients who are at the end of life.

Integrate Interpersonal perspectives

The success of quality improvement in the healthcare setting will be made possible through adopting inter-professional perspectives in the health care setting. This aspect will play a critical role in leading quality improvements in patient safety, work-life quality, cost effectiveness and patient's safety. Hospice programs involve many people to deliver optimum care to a patient (Kaye et al., 2020). In most cases, these people incorporate a hospice worker, a nurse and a social worker. This multidisciplinary team will be involved in all aspects related to patient's care including formulating an education program towards this perspective. A team will need to be formed to cater for nurse's education and care providers. The

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interpersonal approach will be critical to facilitate development of intervention to alleviate pain and address vital symptoms. The team will also play a crucial role in facilitating efficiency through reducing cost of care due to reduced IPU admission.

The success of this initiative will be anchored on an optimal work-life balance for care takers and nurses. Due to an increase in the number of staff at the facility and increment in quality of care, quality of work life will be enhanced. This aspect will arise from a reduced strain on care takers due to adequate nurse to patient ratio. Besides, the education intervention and training will be essential to equip the care takers on the best modalities to care for patients in hospice unit. In addition, they will feel more equipped to assist the patients at the end of life. Team working will facilitate maintenance of open communication vital for delivery of wholesome care.

Effective communication strategies

According to Tulskey et al., (2017) open and clear communication plays a key role in building a rapport between care takers and patients in a hospice setting. For the health care setting under study, it will be vital to include the employees and stakeholders to achieve quality improvements. Giving the staff autonomy to voice their concerns regarding quality improvement modalities will facilitate success of the initiatives. As cited by Rafferty and Jimmieson (2017), resistance from employees contributes to failure in making changes in healthcare settings. Giving the staff chance to voice their concerns will make them feel part of the change process and therefor support them. Two-way communication between the patients and care takers will also enable for collection of evidence rerated to the topic under assessment. This will imply that top-bottom communication will enable the care takers to understand patient concerns and make crucial changes that will contribute to delivery of optimum care. The SBAR communication model will be to allow for assessing the situation,

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background, assessing efficiency and recommendation for effective actions. This model will also be essential to allow staff to provide new nurses or care takers with patient's situation, patient's medical background, current health assessment and recommendations to improve patient's overall conditions. According to Muller et al., (2018) this model is an evidence-based framework that leads to improvement in patient's safety.

Conclusion

Assessment of Villa Health's data illustrate that there are key areas of concern that require quality improvement. This aspect will lead to reduction of adverse events in the hospice unit as currently is. This analysis has shown that the patients need to enter the hospice program earlier to increase recovery time. Besides, the statistics have shown that pain levels of the patients and management of symptoms are crucial parameters that must be considered in this perspective. This analysis has recommended staff education and training to allow for increase in delivery of personalized care that will culminate in improved quality of care. Besides, there is need for team work to achieve these objectives while adopting open and transparent communication among stakeholders. The entity will attain overall positive outcome in patient's metrics with adherence to these recommendations.

References

- Allsop, M. J., Ziegler, L. E., Mulvey, M. R., Russell, S., Taylor, R., & Bennett, M. I. (2018). Duration and determinants of hospice-based specialist palliative care: a national retrospective cohort study. *Palliative medicine*, 32(8), 1322-1333.
- Borgonovi, E., Adinolfi, P., Palumbo, R., & Piscopo, G. (2018). Framing the shades of sustainability in health care: pitfalls and perspectives from Western EU Countries. *Sustainability*, 10(12), 4439.
- Coles, E., Wells, M., Maxwell, M., Harris, F. M., Anderson, J., Gray, N. M., ... & MacGillivray, S. (2017). The influence of contextual factors on healthcare quality improvement initiatives: what works, for whom and in what setting? Protocol for a realist review. *Systematic reviews*, 6(1), 1-10.
- Coyne, P., Mulvenon, C., & Paice, J. A. (2018). American Society for Pain Management Nursing and Hospice and Palliative Nurses Association position statement: Pain management at the end of life. *Pain management nursing*, 19(1), 3-7.
- Holden, J. H., Shamseddeen, H., Johnson, A. W., Byriel, B., Subramoney, K., Cheng, Y. W., ... & Orman, E. S. (2020). Palliative care and hospice referrals in patients with decompensated cirrhosis: what factors are important?. *Journal of palliative medicine*, 23(8), 1066-1075.
- Hui, D., Hannon, B. L., Zimmermann, C., & Bruera, E. (2018). Improving patient and caregiver outcomes in oncology: Team-based, timely, and targeted palliative care. *CA: a cancer journal for clinicians*, 68(5), 356-376.
- Kaye, E. C., Applegarth, J., Gattas, M., Kiefer, A., Reynolds, J., Zalud, K., & Baker, J. N. (2020). Hospice nurses request paediatric-specific educational resources and training programs to improve care for children and families in the community: qualitative data analysis from a population-level survey. *Palliative medicine*, 34(3), 403-412.

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- Kumar, P., Wright, A. A., Hatfield, L. A., Temel, J. S., & Keating, N. L. (2017). Family perspectives on hospice care experiences of patients with cancer. *Journal of clinical oncology*, 35(4), 432.
- Ma, X., Lu, Y., Yang, H., Yu, W., Hou, X., Guo, R., ... & Zhang, Y. (2019). Relationships between patient-related attitudinal barriers, analgesic adherence and pain relief in Chinese cancer inpatients. *Supportive Care in Cancer*, 1-7.
- Muller, M., Jurgens, J., Redaelli, M., Klingberg, K., Hautz, W., and Stock, S. (2018). Impact of the communication and patient hand-off tool SBAR on patient safety: a systematic review. *BMJ Open Access*.8(1). Retrieved from doi:10.1136/bmjopen-2018-022202
- Mulville, A. K., Widick, N. N., & Makani, N. S. (2019). Timely referral to hospice care for oncology patients: a retrospective review. *American Journal of Hospice and Palliative Medicine®*, 36(6), 466-471.
- National Quality Forum. (2006). A national framework and preferred practices for palliative and hospice care quality. Retrieved from [NQF: A National Framework and Preferred Practices for Palliative and Hospice Care Quality \(qualityforum.org\)](https://www.qualityforum.org/Publications/2006/01/National_Framework_and_Preferred_Practices_for_Palliative_and_Hospice_Care_Quality.aspx)
- Rafferty, A. E., & Jimmieson, N. L. (2017). Subjective perceptions of organizational change and employee resistance to change: Direct and mediated relationships with employee well-being. *British Journal of Management*, 28(2), 248-264.
- Tulsky, J. A., Beach, M. C., Butow, P. N., Hickman, S. E., Mack, J. W., Morrison, R. S., ... & Pollak, K. I. (2017). A research agenda for communication between health care professionals and patients living with serious illness. *JAMA internal medicine*, 177(9), 1361-1366.
- Wang, R., Zeidan, A. M., Halene, S., Xu, X., Davidoff, A. J., Huntington, S. F., ... & Ma, X. (2017). Health care use by older adults with acute myeloid leukemia at the end of life. *Journal of Clinical Oncology*, 35(30), 3417.

Yang, H., & Gao, H. (2018). Toward sustainable virtualized healthcare: extracting medical entities from Chinese online health consultations using deep neural networks.

Sustainability, 10(9), 3292.