**Supplementary Digital Content 1:** Simulation competency domains, examples of interventions in the literature, and scenario conditions providing opportunities to practice targeted leadership competencies. Example interventions from the literature are provided because in the design process, it was critical to identify organizational challenges where some form of evidence-based leadership or management strategy existed to remedy the problem. The scenario events / conditions providing opportunities to practice are represented in the simulation as profiles of information on the simulation board, simulated performance data, and breakout session scenarios.

| **Competency Domain / Organizational Structures and Processes** | **Example interventions and strategies for addressing organizational factors** | **Scenario events / conditions providing opportunities to practice and learn leadership behaviors and strategies** |
| --- | --- | --- |
| **Governance Priority**: The ‘visible and determined leadership by CEO and Board’. CEOs and board members steadfastly engage with front-line staff, management, and other organizational leaders to evaluate performance and explore opportunities for improvement which constitute the key ingredient to achieving high-value care. | * Executive Leadership Rounding1,2,3
* Executive Leader ‘adopt a unit’4
* Organizational Safety Briefings / Huddles5
* Patient Safety Strategic Plan6
* Leadership Styles6,7
 | * The hospital has no efficient goal setting and goal communication structures in place.
* General organizational goals are set, but focus primarily on financial measures and do not directly address safety.
* Leaders repeatedly express the attitude that they are in an organization in crisis by saying that they are ‘just trying to keep the doors open.’
* Leaders provide no specific goals or actionable guidance related to safety or quality to people across levels of the organization.
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| **Culture of Continuous Improvement**: CEOs and Boards’ commitment to ongoing real-time learning. | * Local, unit-based improvement teams
	+ Comprehensive Unit-based Safety Program (CUSP)8
	+ Rapid Adoption Network (RAN)9
* Lean Six Sigma and related process improvement methodologies10
* Board Engagement11,12
* Teamwork Training13
 | **What happens when Goals are not met*** When the organization fails to meet a goal, no information is provided to frontline staff about why.
* Frontline staff just receives consequences from failure to meet goals, which are punitive in nature, resulting in low morale and high turnover.
* Leaders have established a blame culture by repeatedly being person focused rather than system focused in addressing errors.
* Leaders do not engage staff at unit and frontline levels in an exploration of what prevented organizational goals being met.

**When Goals are met*** When the organization does meet it’s financial goals leadership engages in reinforcement of status quo at higher levels of the organization through retreats and bonuses for upper level leaders.
* There are no formal reward, recognition, or incentive systems in place that bridge all levels of the organization.
* When a goal is met, leaders do not engage in exploration of how to improve or maintain success.
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| **Internal Transparency and Feedback:** Internal transparencyis visible progress in performance, outcomes, and cost. It increases provider awareness of variations in practice, and their performance against internal and external benchmarks, thereby helping to guide providers’ behavior toward improved value. | * Web-based business intelligence tools14
* Error reporting and near-miss reporting15
* Data dashboards and score cards16
 | * The organization does not have proactive data collection processes in place for monitoring safety and quality beyond meeting required reporting.
* Safety and quality data is collected passively through billing system.
* Goal setting does not involve patients/families or lower levels of the organization
* There is no feedback linked to clear organizational goals for unit level or frontline staff.
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**Supplementary Digital Content 1 References**

1. Yee, P. L., Edwards, M. L., Dixon, J., & Gleason, N. S. (2009). Implementation of patient safety rounds in a children's hospital. Nursing administration quarterly, 33(1), 48-53.
2. Thomas, E. J., Sexton, J. B., Neilands, T. B., Frankel, A., & Helmreich, R. L. (2005). The effect of executive walk rounds on nurse safety climate attitudes: a randomized trial of clinical units. BMC health services research, 5(1), 28.
3. Burnett, S., Parand, A., Benn, J., Pinto, A., Iskander, S., & Vincent, C. (2008). Learning about leadership from Patient Safety WalkRoundsTM. The International Journal of Clinical Leadership, 16(4), 185-192.
4. Pronovost, P. J., Weast, B., Bishop, K., Paine, L., Griffith, R., Rosenstein, B. J., ... & Davis, R. (2004). Senior executive adopt-a-work unit: a model for safety improvement. Joint Commission Journal on Quality and Patient Safety, 30(2), 59-68.
5. Goldenhar, L. M., Brady, P. W., Sutcliffe, K. M., & Muething, S. E. (2013). Huddling for high reliability and situation awareness. BMJ quality & safety,22(11), 899-906.
6. Keroack, M. A., Youngberg, B. J., Cerese, J. L., Krsek, C., Prellwitz, L. W., & Trevelyan, E. W. (2007). Organizational factors associated with high performance in quality and safety in academic medical centers. Academic Medicine, 82(12), 1178-1186.
7. Lukas, C. V., Holmes, S. K., Cohen, A. B., Restuccia, J., Cramer, I. E., Shwartz, M., & Charns, M. P. (2007). Transformational change in health care systems: an organizational model. Health care management review, 32(4), 309-320.
8. Timmel, J., Kent, P. S., Holzmueller, C. G., Paine, L., Schulick, R. D., & Pronovost, P. J. (2010). Impact of the Comprehensive Unit-based Safety Program (CUSP) on safety culture in a surgical inpatient unit. Joint Commission Journal on Quality and Patient Safety, 36(6), 252-260.
9. Kosel, K. C., Clark, T., Haywood, T. T., & Lonappan, M. (2012). VHA Blueprints Redefining the Way Clinical Knowledge Is Transferred. American Journal of Medical Quality, 27(3), 226-232.
10. De Koning, H., Verver, J. P., van den Heuvel, J., Bisgaard, S., & Does, R. J. M. M. (2006). Lean six sigma in healthcare. Journal for Healthcare Quality, 28(2), 4.
11. Bohmer, R. M., Bloom, J. D., Mort, E. A., Demehin, A. A., & Meyer, G. S. (2009). Restructuring within an academic health center to support quality and safety: the development of the center for quality and safety at the Massachusetts General Hospital. Academic Medicine, 84(12), 1663-1671.
12. Jiang, H. J., Lockee, C., Bass, K., & Fraser, I. (2007). Board engagement in quality: findings of a survey of hospital and system leaders. Journal of healthcare management/American College of Healthcare Executives, 53(2), 121-34.
13. Weaver, S. J., Dy, S. M., & Rosen, M. A. (2014). Team-training in healthcare: a narrative synthesis of the literature. BMJ quality & safety, 23(5), 359-372.
14. Ferranti, J. M., Langman, M. K., Tanaka, D., McCall, J., & Ahmad, A. (2010). Bridging the gap: leveraging business intelligence tools in support of patient safety and financial effectiveness. Journal of the American Medical Informatics Association, 17(2), 136-143.
15. Harris, C. B., Krauss, M. J., Coopersmith, C. M., Avidan, M., Nast, P. A., Kollef, M. H., ... & Fraser, V. J. (2007). Patient safety event reporting in critical care: A study of three intensive care units\*. Critical care medicine, 35(4), 1068-1076.
16. Inamdar, N., Kaplan, R. S., Bower, M., & Reynolds, K. (2002). Applying the balanced scorecard in healthcare provider organizations. Journal of healthcare management, 47(3), 179-196.