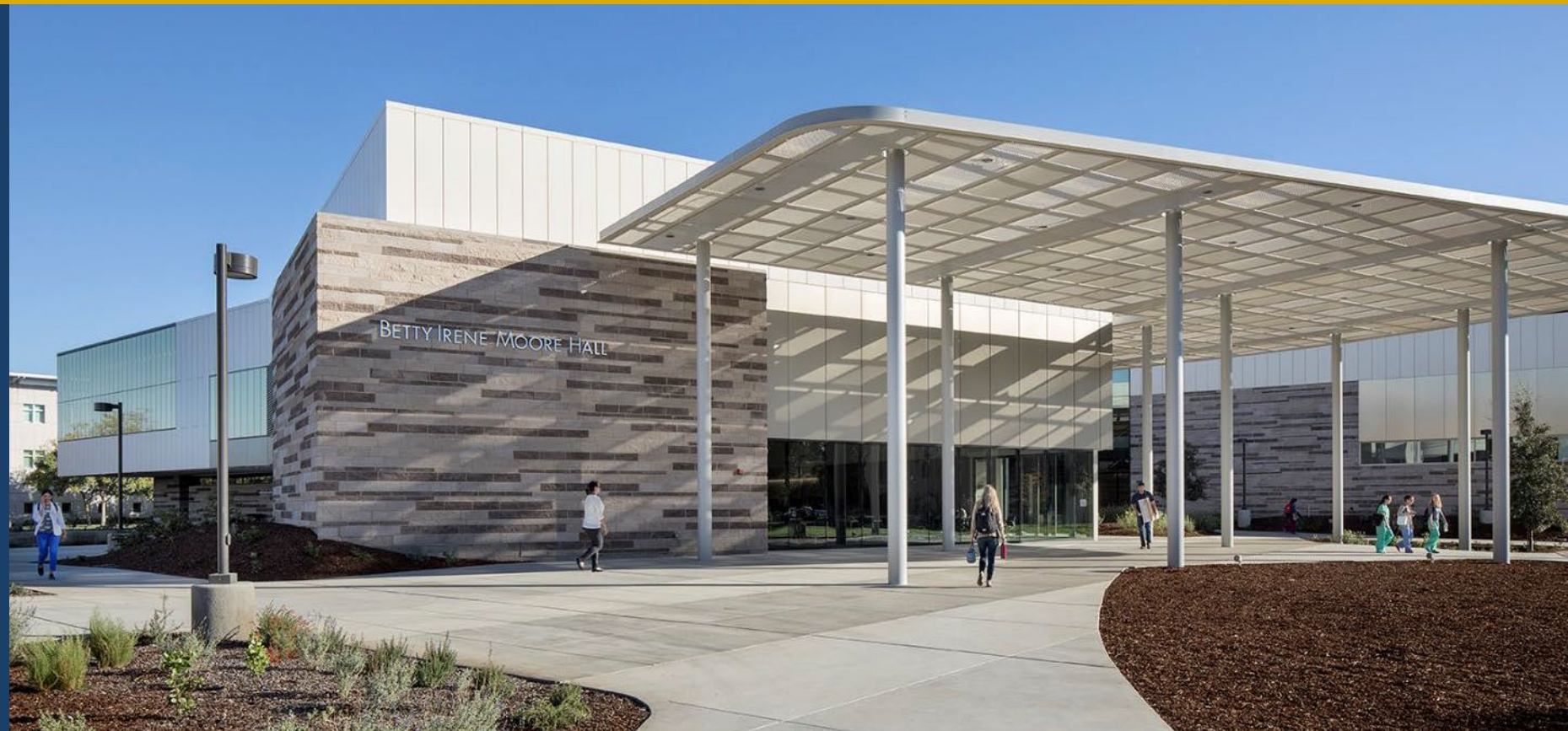
UCDAVIS HEALTH

All Eyes On Falls:
A Multicomponent Fall Prevention Strategy

BETTY IRENE MOORE SCHOOL OF NURSING



NHADINE FABRO-BROWN

MS-L

Hospital Falls…Why Do We Care About Them?

- 700,000 to a million individuals fall in U.S. hospitals every year.
- Over one-third of hospital falls cause patient harm such as fractures and head trauma
- 1 in 20 falls can result in serious injury
- Cost of a single serious fall-related injury estimated at

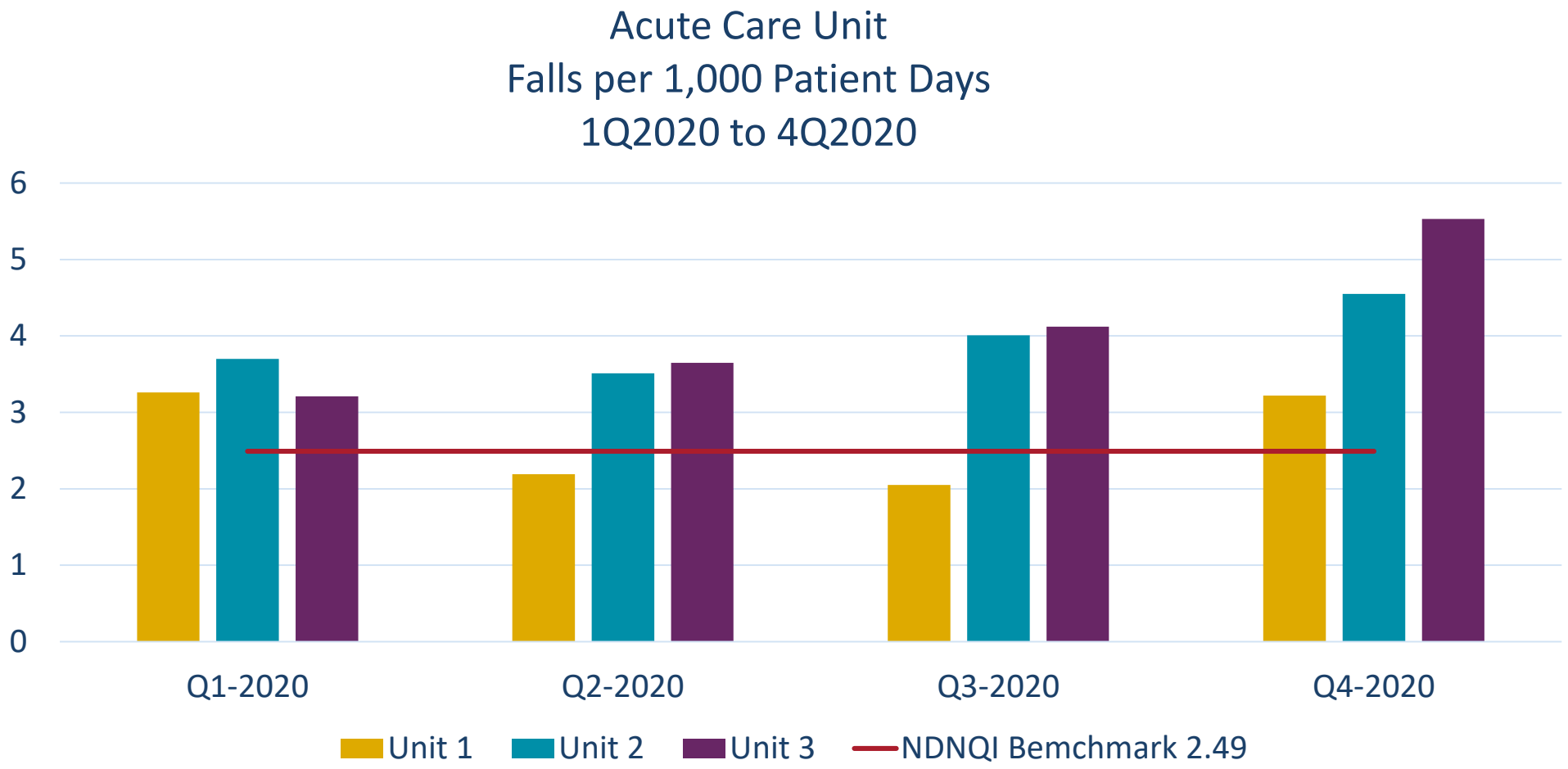
  $15,100 as of 2016.
- Organizations do not get paid for any fall-related expenses
- Death or severe injury from an inpatient fall is a “never event” based on Centers for Medicare and Medicaid Services guidelines

(AHRQ, 2019; The Joint Commission, 2015)

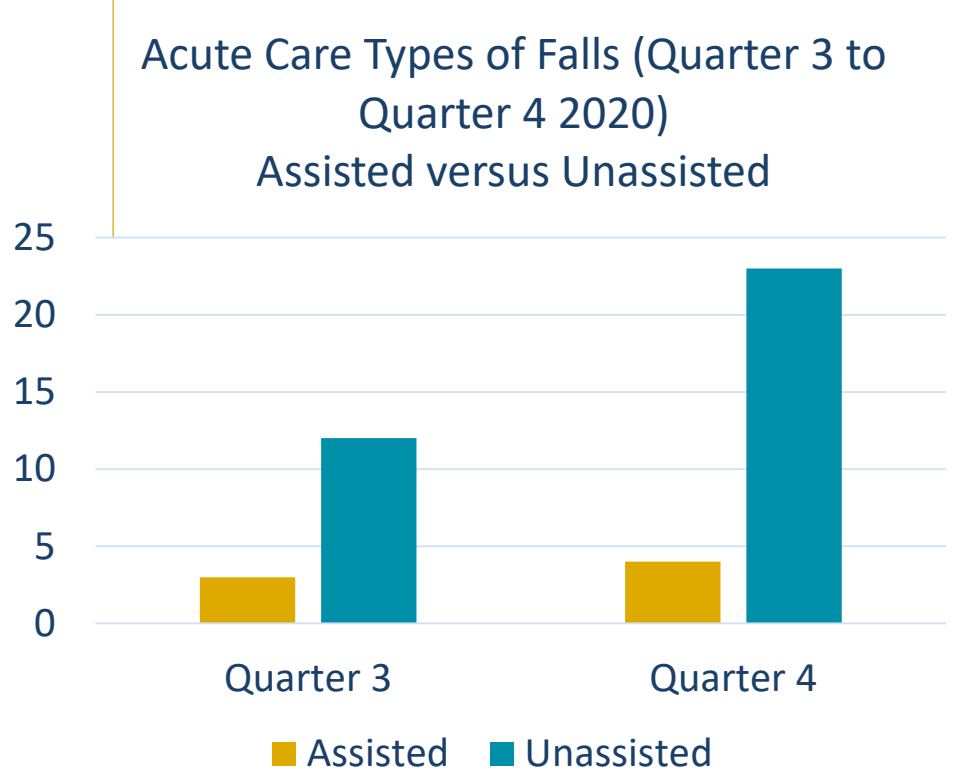
Project Setting

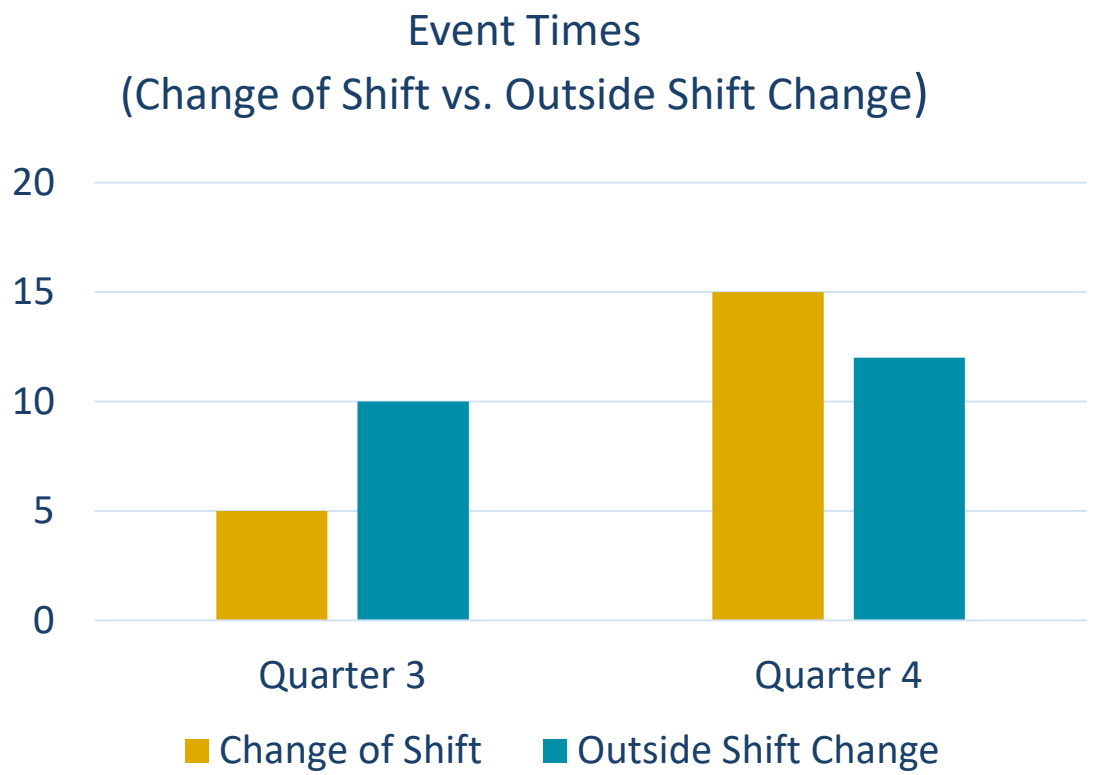
- 245-bed Magnet Designated community hospital in Northern California
- Three acute care units
- Patients 18 years old and above

Current Condition

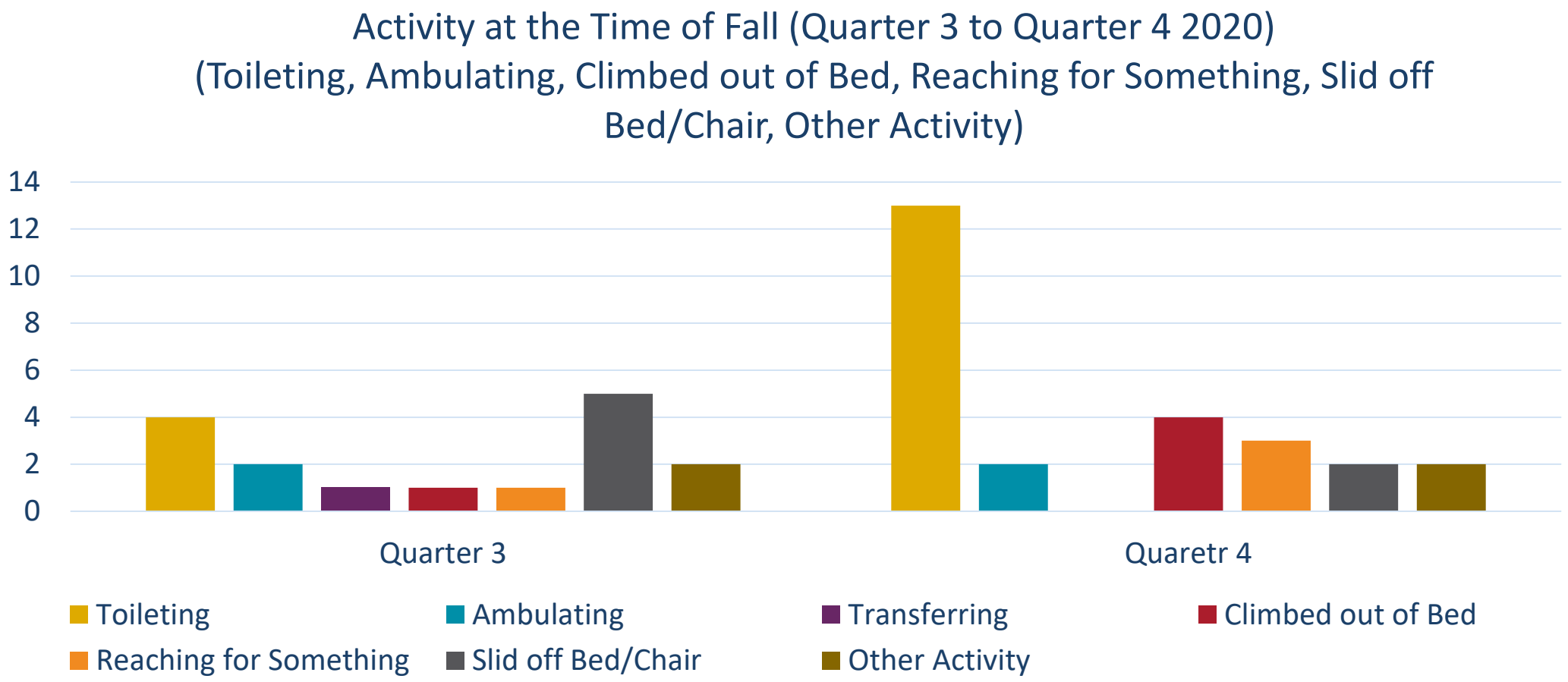


Current Condition Cont.





Current Condition Cont.



SMART Outcome Goals

- The number of falls in the acute care units will decrease by 25% during the project implementation period compared to the number of falls from the previous quarter.

- The number of toileting-related falls and unassisted falls in the acute care units will decrease by 25% during the implementation period compared to the previous quarter.

Current Fall Prevention Strategies

- Fall risk assessment
- Purposeful hourly rounding
- Bed/chair alarm
- Video Monitoring
- No Pass Zone
- Patient education
- Fall contract
- Hand off communication
- Post fall huddle
- Promoting patient mobility

Opportunities for Improvement

(1) Revising current hourly rounding process with specific emphasis on scheduled/proactive toileting

(2) Implementing a standardized mobility assessment tool

(3) Developing fall prevention and mobility education material for patients and family members

(5) Improving staff communication on patients' fall risk factors and fall prevention plans.

Literature Review

- Compare and contrast various acute care fall prevention interventions, programs, and toolkits in U.S. hospitals
- Identify common fall contributing factors
- Review evidence-based fall prevention interventions and their relevance and significance to the organization's current fall state

Summary of Proposed Fall Prevention Strategies

Multicomponent Evidence-Based Fall Prevention Strategy

- Modifying the current purposeful hourly rounding and scheduled toileting process.
- Implementing and educating staff on the use of a Banner Mobility Assessment Tool (BMAT) and promoting staff engagement in patient mobility.
- Replacing the Fall Contract with Fall TIPS (Tailoring Interventions for Patient Safety).
- Deploying a trained and designated Certified Nursing Assistant (CNA) or Registered Nurse as a Patient Safety and Mobility Rounder.

Proposed Fall Prevention Strategy #1

- Reeducate/ Retrain Staff
- Replace Old Hourly Rounding Log
- Optimize the Resource Nurse Role
- Implement Scheduled/Proactive Toileting Process
- Utilize Rounding Checklist

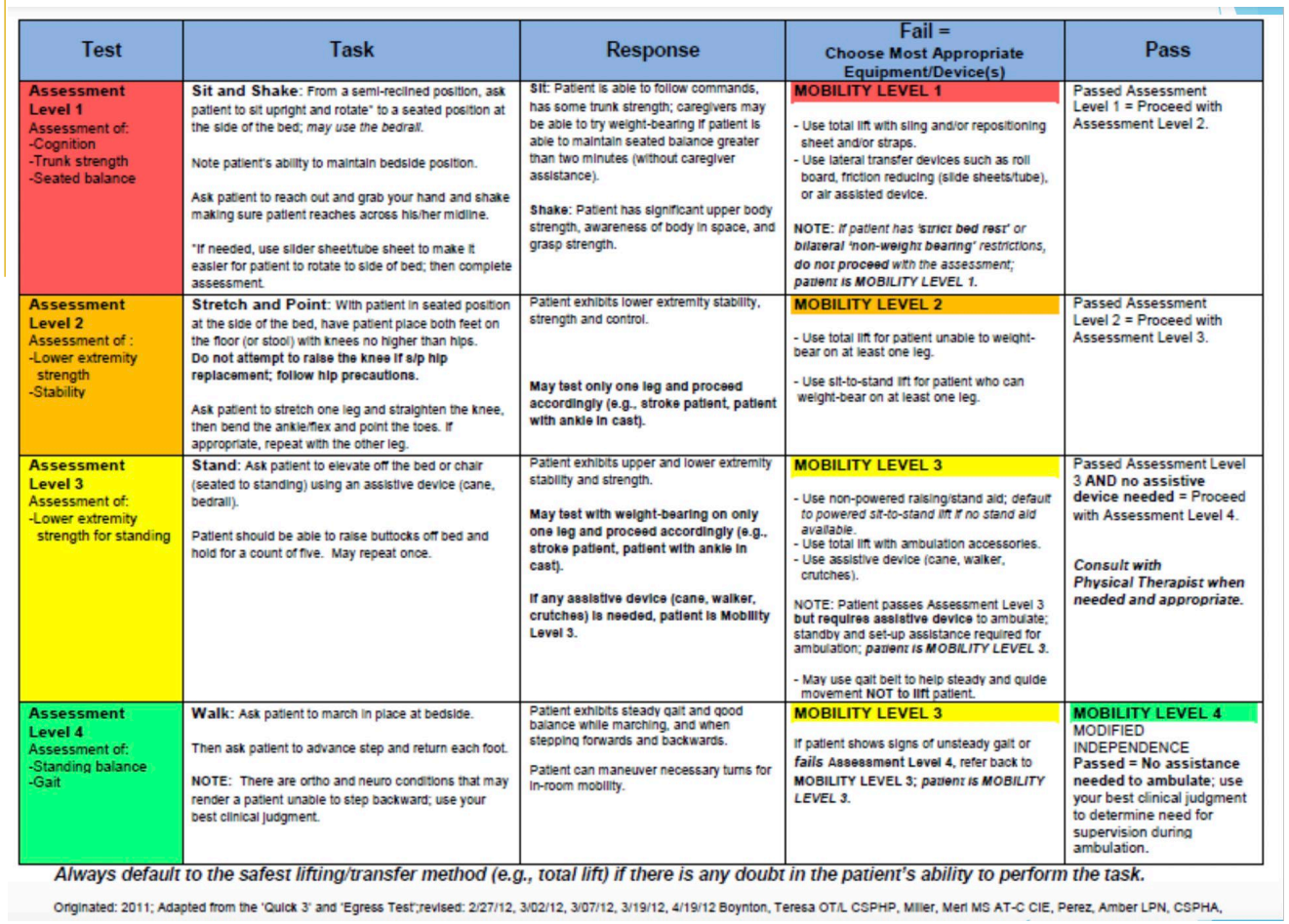
Proposed Fall Prevention Strategy #2

Scheduled toileting for ALL patients:	Scheduled toileting for patients with at least one of the following: (1) confusion/forgetfulness (2) urinary incontinence (3) IV fluids (4) diuretic (5) laxative (6) requires mobility assistance
BEFORE BREAKFAST, AFTER EVERY MEAL, AND BEFORE BEDTIME	**EVERY 2 HRS BETWEEN 6AM AND 10PM, AND EVERY 3 TO 4 HRS AFTER 10PM**

NO ONE TOILETS ALONE

-Staff to remain with fall risk patients at all times during toileting

Proposed Fall Prevention Strategy #3



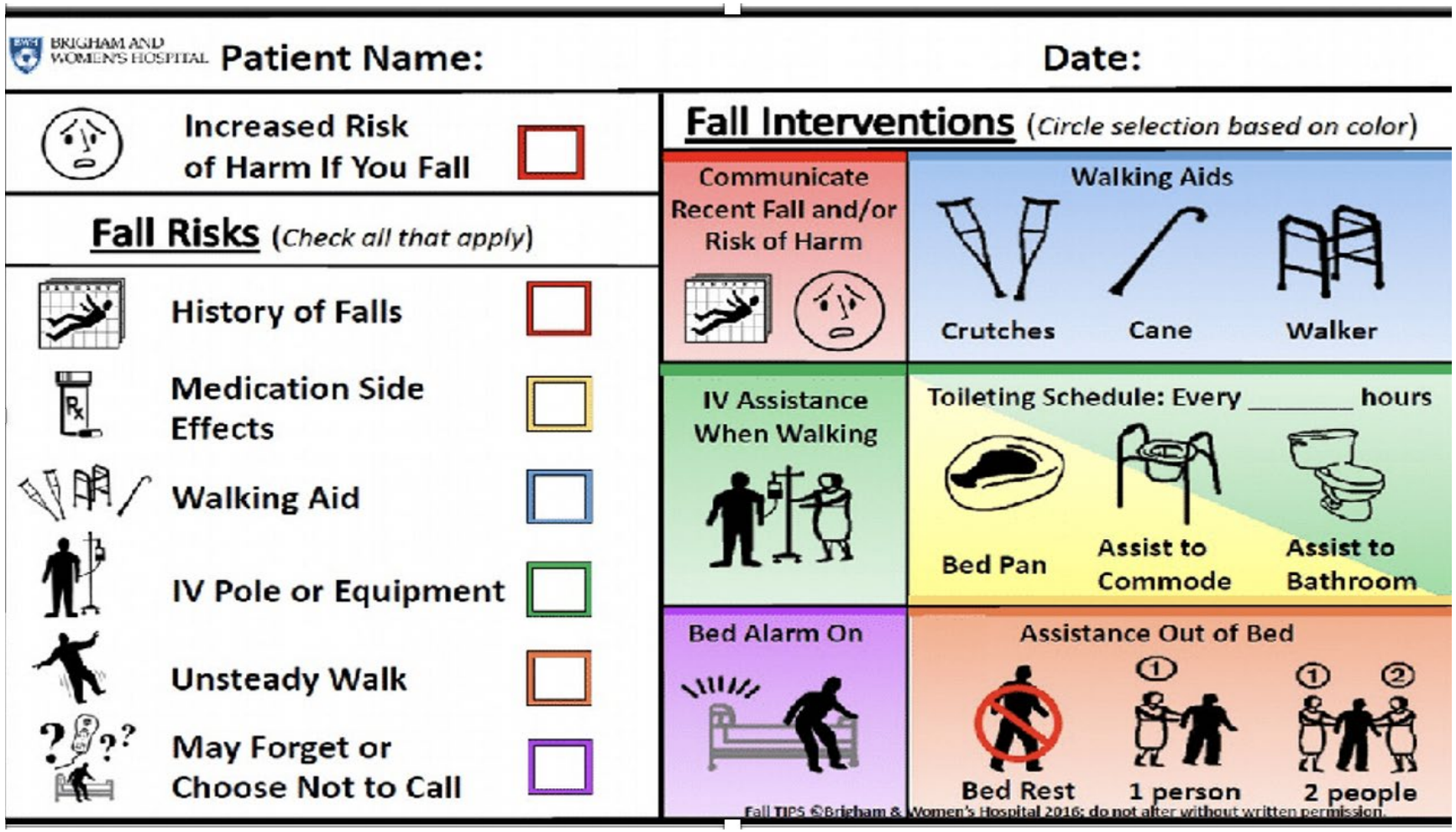
Test	Task	Response	Fail = Choose Most Appropriate Equipment/Device(s)	Pass
Assessment Level 1 Assessment of: -Cognition -Trunk strength -Seated balance	**Sit and Shake:** From a semi-reclined position, ask patient to sit upright and rotate* to a seated position at the side of the bed; *may use the bedrail.* Note patient's ability to maintain bedside position. Ask patient to reach out and grab your hand and shake making sure patient reaches across his/her midline. *If needed, use slider sheet/tube sheet to make it easier for patient to rotate to side of bed; then complete assessment.	**Sit:** Patient is able to follow commands, has some trunk strength; caregivers may be able to try weight-bearing if patient is able to maintain seated balance greater than two minutes (without caregiver assistance). **Shake:** Patient has significant upper body strength, awareness of body in space, and grasp strength.	**MOBILITY LEVEL 1** - Use total lift with sling and/or repositioning sheet and/or straps. - Use lateral transfer devices such as roll board, friction reducing (slide sheets/tube), or air assisted device. **NOTE:** *If patient has 'strict bed rest' or bilateral 'non-weight bearing' restrictions, **do not proceed** with the assessment; **patient is MOBILITY LEVEL 1.***	Passed Assessment Level 1 = Proceed with Assessment Level 2.
Assessment Level 2 Assessment of : -Lower extremity strength -Stability	**Stretch and Point:** With patient in seated position at the side of the bed, have patient place both feet on the floor (or stool) with knees no higher than hips. **Do not attempt to raise the knee if s/p hip replacement; follow hip precautions.** Ask patient to stretch one leg and straighten the knee, then bend the ankle/flex and point the toes. If appropriate, repeat with the other leg.	Patient exhibits lower extremity stability, strength and control. **May test only one leg and proceed accordingly (e.g., stroke patient, patient with ankle in cast).**	**MOBILITY LEVEL 2** - Use total lift for patient unable to weight-bear on at least one leg. - Use sit-to-stand lift for patient who can weight-bear on at least one leg.	Passed Assessment Level 2 = Proceed with Assessment Level 3.
Assessment Level 3 Assessment of: -Lower extremity strength for standing	**Stand:** Ask patient to elevate off the bed or chair (seated to standing) using an assistive device (cane, bedrail). Patient should be able to raise buttocks off bed and hold for a count of five. May repeat once.	Patient exhibits upper and lower extremity stability and strength. **May test with weight-bearing on only one leg and proceed accordingly (e.g., stroke patient, patient with ankle in cast).** **If any assistive device (cane, walker, crutches) is needed, patient is Mobility Level 3.**	**MOBILITY LEVEL 3** - Use non-powered raising/stand aid; *default to powered sit-to-stand lift if no stand aid available.* - Use total lift with ambulation accessories. - Use assistive device (cane, walker, crutches). NOTE: Patient passes Assessment Level 3 **but requires assistive device** to ambulate; standby and set-up assistance required for ambulation; ***patient is MOBILITY LEVEL 3.*** - May use gait belt to help steady and guide movement **NOT to lift** patient.	Passed Assessment Level 3 **AND no assistive device needed** = Proceed with Assessment Level 4. ***Consult with Physical Therapist when needed and appropriate.***
Assessment Level 4 Assessment of: -Standing balance -Gait	**Walk:** Ask patient to march in place at bedside. Then ask patient to advance step and return each foot. **NOTE:** There are ortho and neuro conditions that may render a patient unable to step backward; use your best clinical judgment.	Patient exhibits steady gait and good balance while marching, and when stepping forwards and backwards. Patient can maneuver necessary turns for in-room mobility.	**MOBILITY LEVEL 3** If patient shows signs of unsteady gait or ***fails* Assessment Level 4**, refer back to **MOBILITY LEVEL 3**; ***patient is MOBILITY LEVEL 3.***	**MOBILITY LEVEL 4** MODIFIED INDEPENDENCE **Passed = No assistance needed to ambulate**; use your best clinical judgment to determine need for supervision during ambulation.

Always default to the safest lifting/transfer method (e.g., total lift) if there is any doubt in the patient's ability to perform the task.

Originated: 2011; Adapted from the 'Quick 3' and 'Egress Test';revised: 2/27/12, 3/02/12, 3/07/12, 3/19/12, 4/19/12 Boynton, Teresa OT/L CSPHP, Miller, Meri MS AT-C CIE, Perez, Amber LPN, CSPHA,

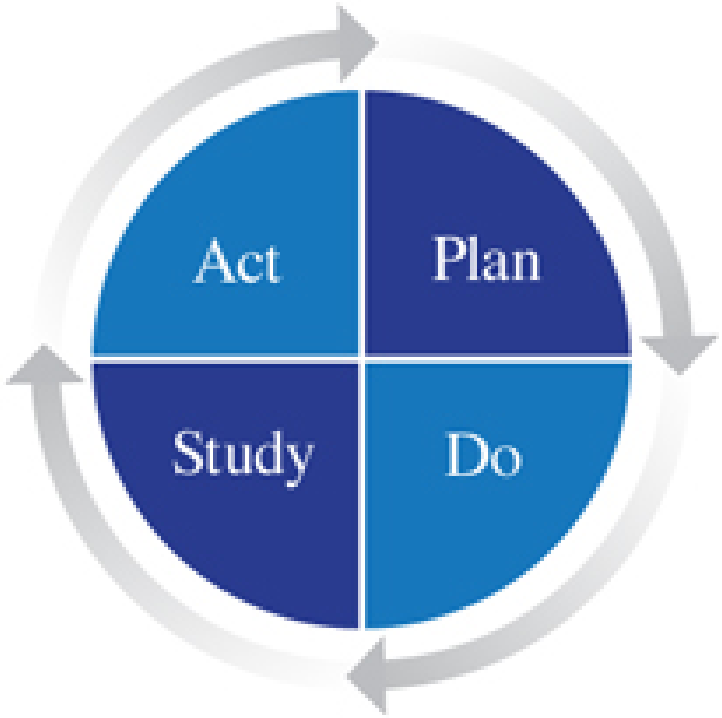
- Review data from Pilot Implementation
- Make necessary changes
- Nursing, PT and Lift Coach collaboration in providing staff training and education
- Ensure all able patients are OOB for meals and ambulating TID
- Specific activity orders

Proposed Fall Prevention Strategy #5



Implementation Process

- Model for Improvement framework from the Institute for Healthcare Improvement (IHI)
- IHI's Framework for Spread
- Stakeholder buy-in
- Project approval
- Implementation challenges
- Future directions



Questions

References:

AHRQ (2019). Agency for Healthcare Research and Quality. https://psnet.ahrq.gov/primer/falls

AHRQ (2013). Agency for Healthcare Research and Quality.https://www.ahrq.gov/professionals/systems/hospital/fallpxtoolkit/fallpxtk5.html

Avanecean, D., Calliste, D., Contreras, T., Lim, Y., & Fitzpatrick, A. (2017). Effectiveness of patient-centered interventions on falls in the acute care setting compared to usual care: a systematic review. *JBI database of systematic reviews and implementation reports*, *15*(12), 3006–3048. https://doi.org/10.11124/JBISRIR-2016-003331

DiBardino, D., Cohen, E. R., & Didwania, A. (2012). Meta-analysis: multidisciplinary fall prevention strategies in the acute care inpatient population. *Journal of hospital medicine*, *7*(6), 497–503. https://doi.org/10.1002/jhm.1917

Dykes, P. C., Carroll, D. L., Hurley, A., Lipsitz, S., Benoit, A., Chang, F., Meltzer, S., Tsurikova, R., Zuyov, L., & Middleton, B. (2010). Fall prevention in acute care hospitals: a randomized trial. *JAMA*, *304*(17), 1912–1918. https://doi.org/10.1001/jama.2010.1567

France, D., Slayton, J., Moore, S., Domenico, H., Matthews, J., Steaban, R. L., & Choma, N. (2017). A Multicomponent Fall Prevention Strategy Reduces Falls at an Academic Medical Center. *Joint Commission journal on quality and patient safety*, *43*(9), 460–470. https://doi.org/10.1016/j.jcjq.2017.04.006

Fridman, V. (2019). Redesigning a Fall Prevention Program in Acute Care. *Clinics in Geriatric Medicine,35*(2), 265-271. doi:10.1016/j.cger.2019.01.006

Ganz DA, Huang C, Saliba D, et al. *Preventing falls in hospitals: a toolkit for improving quality of care*. (Prepared by RAND Corporation, Boston University School of Public Health, and ECRI Institute under Contract No. HHSA290201000017I TO #1.) Rockville, MD: Agency for Healthcare Research and Quality; January 2013. AHRQ Publication No. 13-0015-EF.

Health Research & Educational Trust. (2016, October). Preventing patient falls: A systematic approach from the Joint Commission Center for Transforming Healthcare project. Chicago, IL: *Health Research & Educational Trust*. Accessed at www.hpoe.org

Hempel, S., Newberry, S., Wang, Z., Booth, M., Shanman, R., Johnsen, B., Shier, V., Saliba, D., Spector, W. D., & Ganz, D. A. (2013). Hospital fall prevention: a systematic review of implementation, components, adherence, and effectiveness. *Journal of the American Geriatrics Society*, *61*(4), 483–494. https://doi.org/10.1111/jgs.12169

Jezierski, M., Kuehnlenz, D., Reed, D., Sierminski, D. A mobility team: Making a move to reduce hospital falls. Accessed 10/20/20. Available at:http://nicheconference2012.s3.amazonaws.com/uploads/File/%202012%20Conf%20Poster%20- %20Advocate%20Lutheran%20updated.pdf.

References Cont…

Johnson, K., Scholar, H., Stinson, K., Nea-Bc, Sherry Razo, M. A., & Nea-Bc (2020). Patient fall risk and prevention strategies among acute care hospitals. *Applied nursing research:ANR*, *51*, 151188. https://doi.org/10.1016/j.apnr.2019.151188

Radecki, B., Reynolds, S., & Kara, A. (2018). Inpatient fall prevention from the patient's perspective: A qualitative study. *Applied nursing research : ANR*, *43*, 114–119. https://doi.org/10.1016/j.apnr.2018.08.001

Spano-Szekely, L., Winkler, A., Waters, C., Dealmeida, S., Brandt, K., Williamson, M., .Wright, F. (2019). Individualized Fall Prevention Program in an Acute Care Setting. *Journal of Nursing Care Quality,34*(2), 127-132. doi:10.1097/ncq.0000000000000344

Stalhandske, E., Mills, P., Quigley, P., Neily, J., & Bagian, J. P. (2008). VHA's National Falls Collaborative and Prevention Programs. In K. Henriksen (Eds.) et. al., *Advances in Patient Safety: New Directions and Alternative Approaches (Vol. 2: Culture and Redesign)*. Agency for Healthcare Research and Quality (US).

The Joint Commission (2015). The Joint Commission. https://www.jointcommission.org/-/media/tjc/documents/resources/patient-safety-topics/sentinel-event/sea_55_falls_4_26_16.pdf

Thew, J. (2018). 5 Ways Nurses Can Improve Patient Mobility. https://www.healthleadersmedia.com/nursing/5-ways-nurses-can-improve-patient-mobility

Trepanier, S., & Hilsenbeck, J. (2014). A hospital system approach at decreasing falls with injuries and cost. *Nursing economic$*, *32*(3), 135–141.

Vollman, K. (2019). Early Mobility: Partnering to Ensure Safety in the Med-Surg Environment. Accessed 10/20/20. Available at: https://cha.com/wp-content/uploads/2018/02/Early-Mobility-Med-Surg-02062018.pdf

Vonnes, C., & Wolf, D. (2017). Fall risk and prevention agreement: engaging patients and families with a partnership for patient safety. *BMJ open quality*, *6*(2), e000038.

https://doi.org/10.1136/bmjoq-2017-000038

Williams, A. & Downing, D. (2014). *Falls prevention toolkit: Strategies for streamlined communication, interdisciplinary scope, and patient and family engagement.*Missouri Hospital Association.

References:

AHRQ (2019). Agency for Healthcare Research and Quality. https://psnet.ahrq.gov/primer/falls

AHRQ (2013). Agency for Healthcare Research and Quality.https://www.ahrq.gov/professionals/systems/hospital/fallpxtoolkit/fallpxtk5.html

Avanecean, D., Calliste, D., Contreras, T., Lim, Y., & Fitzpatrick, A. (2017). Effectiveness of patient-centered interventions on falls in the acute care setting compared to usual care: a systematic review. *JBI database of systematic reviews and implementation reports*, *15*(12), 3006–3048. https://doi.org/10.11124/JBISRIR-2016-003331

DiBardino, D., Cohen, E. R., & Didwania, A. (2012). Meta-analysis: multidisciplinary fall prevention strategies in the acute care inpatient population. *Journal of hospital medicine*, *7*(6), 497–503. https://doi.org/10.1002/jhm.1917

Dykes, P. C., Carroll, D. L., Hurley, A., Lipsitz, S., Benoit, A., Chang, F., Meltzer, S., Tsurikova, R., Zuyov, L., & Middleton, B. (2010). Fall prevention in acute care hospitals: a randomized trial. *JAMA*, *304*(17), 1912–1918. https://doi.org/10.1001/jama.2010.1567

France, D., Slayton, J., Moore, S., Domenico, H., Matthews, J., Steaban, R. L., & Choma, N. (2017). A Multicomponent Fall Prevention Strategy Reduces Falls at an Academic Medical Center. *Joint Commission journal on quality and patient safety*, *43*(9), 460–470. https://doi.org/10.1016/j.jcjq.2017.04.006

Fridman, V. (2019). Redesigning a Fall Prevention Program in Acute Care. *Clinics in Geriatric Medicine,35*(2), 265-271. doi:10.1016/j.cger.2019.01.006

Ganz DA, Huang C, Saliba D, et al. *Preventing falls in hospitals: a toolkit for improving quality of care*. (Prepared by RAND Corporation, Boston University School of Public Health, and ECRI Institute under Contract No. HHSA290201000017I TO #1.) Rockville, MD: Agency for Healthcare Research and Quality; January 2013. AHRQ Publication No. 13-0015-EF.

Health Research & Educational Trust. (2016, October). Preventing patient falls: A systematic approach from the Joint Commission Center for Transforming Healthcare project. Chicago, IL: *Health Research & Educational Trust*. Accessed at www.hpoe.org

Hempel, S., Newberry, S., Wang, Z., Booth, M., Shanman, R., Johnsen, B., Shier, V., Saliba, D., Spector, W. D., & Ganz, D. A. (2013). Hospital fall prevention: a systematic review of implementation, components, adherence, and effectiveness. *Journal of the American Geriatrics Society*, *61*(4), 483–494. https://doi.org/10.1111/jgs.12169

Jezierski, M., Kuehnlenz, D., Reed, D., Sierminski, D. A mobility team: Making a move to reduce hospital falls. Accessed 10/20/20. Available at:http://nicheconference2012.s3.amazonaws.com/uploads/File/%202012%20Conf%20Poster%20- %20Advocate%20Lutheran%20updated.pdf.

References Cont…

Johnson, K., Scholar, H., Stinson, K., Nea-Bc, Sherry Razo, M. A., & Nea-Bc (2020). Patient fall risk and prevention strategies among acute care hospitals. *Applied nursing research:ANR*, *51*, 151188. https://doi.org/10.1016/j.apnr.2019.151188

Radecki, B., Reynolds, S., & Kara, A. (2018). Inpatient fall prevention from the patient's perspective: A qualitative study. *Applied nursing research : ANR*, *43*, 114–119. https://doi.org/10.1016/j.apnr.2018.08.001

Spano-Szekely, L., Winkler, A., Waters, C., Dealmeida, S., Brandt, K., Williamson, M., .Wright, F. (2019). Individualized Fall Prevention Program in an Acute Care Setting. *Journal of Nursing Care Quality,34*(2), 127-132. doi:10.1097/ncq.0000000000000344

Stalhandske, E., Mills, P., Quigley, P., Neily, J., & Bagian, J. P. (2008). VHA's National Falls Collaborative and Prevention Programs. In K. Henriksen (Eds.) et. al., *Advances in Patient Safety: New Directions and Alternative Approaches (Vol. 2: Culture and Redesign)*. Agency for Healthcare Research and Quality (US).

The Joint Commission (2015). The Joint Commission. https://www.jointcommission.org/-/media/tjc/documents/resources/patient-safety-topics/sentinel-event/sea_55_falls_4_26_16.pdf

Toole, N., Meluskey, T., & Hall, N. (2016). A systematic review: barriers to hourly rounding. *Journal of Nursing Management, 24*(3), 283-290. doi:10.1111/jonm.12332

Thew, J. (2018). 5 Ways Nurses Can Improve Patient Mobility. https://www.healthleadersmedia.com/nursing/5-ways-nurses-can-improve-patient-mobility

Trepanier, S., & Hilsenbeck, J. (2014). A hospital system approach at decreasing falls with injuries and cost. *Nursing economic$*, *32*(3), 135–141.

Vollman, K. (2019). Early Mobility: Partnering to Ensure Safety in the Med-Surg Environment. Accessed 10/20/20. Available at: https://cha.com/wp-content/uploads/2018/02/Early-Mobility-Med-Surg-02062018.pdf

Vonnes, C., & Wolf, D. (2017). Fall risk and prevention agreement: engaging patients and families with a partnership for patient safety. *BMJ open quality*, *6*(2), e000038.

https://doi.org/10.1136/bmjoq-2017-000038

Williams, A. & Downing, D. (2014). *Falls prevention toolkit: Strategies for streamlined communication, interdisciplinary scope, and patient and family engagement.*Missouri Hospital Association.