

Program	Cornerstone	Best Practice	Summary	Resource
Restorative Sleep	Daytime Active & Purposeful Engagement	One nap limited to 30 min	In this article, the author offers that keeping day time naps to less than 30 minutes a day is suggested, any longer than that a person will reach the deeper stages of sleep and may wake feeling weary.	Author Unknown. Is a nap studio right for you?; Retrieved from : www.sleep.org/nap-studio-right-for-you Retrieved on January 19th, 2018 from Sleep.org
Restorative Sleep	Daytime Active & Purposeful Engagement	Evening meal served after 5:30 pm	Findings conclude that diet quality influences sleep quality. Diets that are rich in fiber, predicted more time spent in deep slow wave sleep. Diets high in saturated fats led to less slow wave deep sleep and higher sugar diets and intake were associated with more time spent awake.	American Academy of Sleep Medicine. (2016, January 14). What you eat can influence how you sleep: Daily intake of fiber, saturated fat and sugar may impact sleep quality. ScienceDaily. Retrieved January 19,2018 from www.sciencedaily.com/releases/2016/01/160114213443.htm
Restorative Sleep	daytime Active & Purposeful Engagement	Lighting	In the ICU setting patients often experience disruptions to their circadian rhythm and experience sleep disorders as a result. When a cycled- lighting system was utilized in place of the current regular lighting system, one that mimics outdoor lighting, was found to best support the patients in the ICU. It was noted that the lighting also contributed to create feelings of calm and security amongst both the patients and staff members.	Engwall, E., Fridh, I., Johansson, L., Bergbom, I., Lindahl, B. (2015). Lighting, sleep and circadian rhythm: An intervention study in the intensive care unit. Intensive and critical care nursing. (Vol. 31, pp. 325-335).
Restorative Sleep	Daytime Active & Purposeful Engagement	Lighting	With the use of light therapy there was a notable difference in mean depression scores from 7.24 (SD 3.42) pretest to 5.91(SD 3.40)posttest. Use of light therapy may be a viable intervention to improve mental health in older adults that reside in LTC.	Mann-Chian, S., Huei-Chuan, S., Wen-Li, L., Smith, G. (2015). The effects of light therapy on depression and sleep disruption in older adults in long-term care. International Journal of Nursing Practice (Vol. 21; no. 5; pp 653-659).
Restorative Sleep	Daytime Active & Purposeful Engagement	Lighting	Lighting should support the health and wellbeing needs of those that inhabit/ occupy an indoor space and should mimic the exposure that one receives if they were outdoors in an effort to best support ones circadian rhythm. The lighting should take into consideration the intensity, spectrum, duration, time of the day and photic history.	White, M., Ancoli-Isreal, S., & Wilson R. (2013). Senior living environments: Evidence-based lighting design strategies. Health Environments Research & Design Journal. (Vol. 7, No. 1, pp. 60-778).
Restorative Sleep	Daytime Active & Purposeful Engagement	Lighting	Conclusion of data show that physical activity levels are positively associated with sleep duration, and that exercise and physical movement in older adults is good practices and facilitates improved sleep in older adults and can be a means of improving sleep.	Garfield, V., Llewellyn, C., Kumari, M. (2016). The relationship between physical activity, sleep duration and depressive symptoms in older adults: The English longitudinal study of aging (ELSA). doi: 10.1016/j.pmedr.2016.09.006
Restorative Sleep	Daytime Active & Purposeful Engagement	Lighting	Increasing bright light use in the existing light fixtures, provides for an affordable way to improve overall bright light exposure for residents and staff and have been shown to improve mood, and decrease overall fall rates for residents.	Van der Ploeg, E. & O'Connor, D. (2014). Methodological challenges in studies of bright light therapy to treat sleep disorders in nursing home residents with dementia. Psychiatry and Clinical Neurosciences 2014. (Vol 68). PP 777-784. doi: 10.1111/pcn.12192
Restorative Sleep	Daytime Active & Purposeful Engagement	Activities align with the circadian rhythm	Results from this study proved that cognitive training and education for healthy elders subjects, had a positive impact on improving their quality of sleep and excessive daytime sleepiness.	Almondes, K., Leonardo, M., Moreira, A. (2017). Effects of a cognitive training program and sleep hygiene for executive functions and sleep quality in healthy elderly. Dementia & Neuropsychologia Jan-Mar; 11(1) pp 69-78. doi: 10.1590/1980-57642016dn11-010011

Restorative Sleep	Daytime Active & Purposeful Engagement	Engagement bins made available	Patients with insomnia or sleep disruptions in mid-life into old age are at an increased risk for pathological changes that proceed to Alzheimer's disease and are at increased risk of developing dementia and AD. By improving sleep, one can lower their risk or reverse the signs of accelerated cognitive aging.	Cedernaes, J., Osorio, R., Varga, A., Kam, K., Schiöth, H., Benedict, C. (2016). Candidate mechanisms underlying the association between sleep-wake disruptions and Alzheimer's disease. <i>Sleep Medicine Reviews</i> 31, pp 102-111. doi: 10.1016/j.smrv.2016.02.002
Restorative Sleep	Daytime Active & Purposeful Engagement	Evening activities offered	Staff education on resident sleep hygiene and understanding the wake and sleep needs of residents is important in providing care. Staff should understand the sleep program, its impact on care and what they can influence to produce a better night's sleep for residents that they care for.	Feldman Barbera, E. (2017). How do they sleep?; McKnight's Long Term Care News. Published on Oct. 10, 2017.
Restorative Sleep	Know The Resident	Night time Care Plans based on resident preference	Sleep disturbances in older adults are often associated with and the development of worsening health conditions. Sleep disturbances in long term care can be addressed through modifications of residents' daily activities and/or nursing home environment can be helpful.	Gamaldo, A., Sloane, K., Gamaldo, C., & Salas, R. (2015). Guide to recognizing and treating sleep disturbances in the nursing home. <i>Journal of Clinical Outcomes Management</i> ; October;22(10).
Restorative Sleep	Restorative Sleep at Night	Aromatherapy	Use of aromatherapy (Lavender essential oil) increased the quality of sleep and reduced the level of anxiety when used with patients who had coronary artery disease. Use of lavender essential oil is a cost-effective and non-invasive way nursing intervention to promote sleep quality.	Karadag, E., Samancioglu, S., Ozden, D. Bakir, E. (2017). Effects of aromatherapy on sleep quality and anxiety of patients. <i>Nursing Critical Care</i> Mar; 22(2): pp. 105-112.
Restorative Sleep	Restorative Sleep at Night	Assessment of Sleep	In this article the author further defines processes and expectations of what occurs in each stage of sleep (NREM, N1, N2, N3, and REM) stages.	SleepFoundation.org. What happens when you sleep? Retrieved from: www.sleepfoundation.org/how-sleep-works/what-happens-when-you-sleep
Restorative Sleep	Restorative Sleep at Night	Assessment of Sleep	Sleep quality of the elderly at both home and in the nursing homes, were at similar levels and more than half of those in the study had poor sleep quality. A noted change in sleep duration, patterns, and quality occur as we age.	Daglar, G., Sabanciogullari, S., Pinar, S., Sultan, Kav. (2017). Sleep quality in the elderly living at home or in the nursing home. <i>Australian Journal of Advanced Nursing</i> 31(4).
Restorative Sleep	Root Cause Analysis	Night time Care Plans based on resident preference	Sleep practices, routines, and social histories should be gathered to determine usual bedtimes for people in institutionalized care settings. Use of actigraphy in determining a routine should be utilized to determine routines as sleep diaries are not an accurate reflection of a person's routine and practice.	Harris, M. & Grando, V. (2014). When is nighttime? A description of bedtime in persons with dementia in the nursing home. <i>Geriatric Nursing</i> . doi:10.1016/j.gerinurse.2014.06.012
Restorative Sleep	Root Cause Analysis	Actigraphy used for sleep assessment	The study indicated that use of actigraphy, worn on the wrist, provides acceptable data and clinical findings of which can be supported in clinical practice in effort to review sleep and wake (activity) behaviors and findings.	Full, K., Kerr, J., Grandner, M., Malhotra, A., Moran, K., Godbole, L., Soler, X. (2017). Validation of a physical activity accelerometer device worn on the hip and wrist against polysomnography. doi:10.1016/j.sleh.2017.12.007
Restorative Sleep	Root Cause Analysis	Actigraphy used for sleep assessment	This study looked at the comparison of actigraphy and polysomnography to fitness trackers and smart phone apps. The conclusion reports that when comparing them against actigraphy they tend to underestimate sleep disruptions and overestimate total sleep times and sleep efficiency in normal subjects.	Kolla, B., Mansukhani, S., Mansukhani, M. (2016). Consumer sleep tracking devices: a review of mechanisms, validity and utility. doi: 10.1586/17434440.2016.1171708

Restorative Sleep	Root Cause Analysis	Actigraphy used for sleep assessment	In this study they compared the reliability and validity between the Fitbit Ultra accelerometer polysomnography and actigraphy. The study reported the limitations of using the Fitbit as a research study devise. The Fitbit was found to underestimate sleep duration and over estimated WASO, which gave an under estimation of sleep efficiency.	Meltzer, L., Hiruma, L., Avis, K., Montgomery-Downs, H., Valentin, J. (2015). Comparison of a commercial accelerometer with polysomnography and actigraphy in children and adolescents. doi: 10.5665/sleep.4918
Restorative Sleep	Restorative Sleep at Night	Overnight incontinence Products	Nocturia is a prevalent condition of waking to void during the night. The concept of nocturia has evolved from being a symptomaticHowever, recent advances in circadian biology and sleep science suggest that it might be important to consider nocturia as a form of circadian dysfunction.	Jin Wook Kim, Young Tae Moon, Kyung Do Kim. Nocturia: The circadian voiding disorder. <i>IC Urology</i> 2016 ;57:165-173. http://dx.doi.org/10.4111/icu.2016.57.3.165
Restorative Sleep	Restorative Sleep at Night	Elimination of night disturbances	Noise in LTC settings can interfere with the normal day time activities and can also be disruptive for restorative sleep at night. By reducing noise pollution (unwanted noise) can improve residents' level of contentment and mood.	Hoffner, G. (2018). Importance of reducing noise in LTC facilities: Uncontrolled noise pollution can exacerbate dementia. Retrieved from: Verywell publications.
Restorative Sleep	Restorative Sleep at Night	Elimination of night disturbances	Noise in nursing homes tends to fall into one of three categories: people talking, mechanical noises, and people doing things (pushing arts). By eliminating unwanted noise through education and processes residents' health and quality of life can be greatly impacted.	Sanders, J. (2017). Improve sleep in nursing homes. <i>Geriatric Nurses/ LTC Nursing: Georgia Institute of Technology Research News</i> . Retrieved on: January 18, 2018.
Restorative Sleep	Restorative Sleep at Night	Elimination of night disturbances	A highlight of the top ten sleep distrubances in inpatient settings which included noise, light, sleeping environment, napping, medications, continence needs, pain, positioning needs, inactivity, and diet.	<i>Evidence-Based Design Meets Evidence-Based Medicine: The Sound Sleep Study</i> . The Center for Health Design Research Coalition, Harvard Medical School, 2010. https://www.healthdesign.org/sites/default/files/Validating%20Acoustic%20Guidelines%20for%20HC%20Facilities_Sound%20Sleep%20Study.pdf
Restorative Sleep	Restorative Sleep at Night	Snooze foods and Wake foods	Emerging evidence confirms a link between diet and sleep. Overall, foods impacting the availability of tryptophan, as well as the synthesis of serotonin and melatonin, may be the most helpful in promoting sleep.	Peuhkuri, Katri, Nora Sihvola, and Riitta Korpela. "Diet promotes sleep duration and quality." <i>Nutrition Research</i> , Volume 32, Issue 5. May 2012. www.sciencedirect.com/science/article/pii/S0271531712000632 .
Restorative Sleep	Restorative Sleep at Night	Lighting	Light is the most potent synchronizer for our circadian system. Light exposure during the night disrupts the circadian rhythm and cycle and influences our metabolic, immunologic, and behavioral functions.	Fonken, L. (2013). Physiological consequences of circadian disruptions by nighttime light exposure. <i>American Doctoral Dissertations</i> . URL: http://rave.ohiolink.edu/etdc/view?acc_num=osu1365165008 (Accession number 2548BA78E3F2C2EE.
Restorative Sleep	Restorative Sleep at Night	Aromatherapy	Sleep quality of the elderly at both home and in the nursing homes, were at similar levels and more than half of those in the study had poor sleep quality. A noted change in sleep duration, patterns, and quality occur as we age.	Faydali, S., & Cetinkaya, F. (2018). The effect of aromatherapy on sleep quality of elderly people residing in a nursing home. <i>Holistic Nursing Practice</i> Jan/Feb; 32 (1) pp 8-16

Restorative Sleep	Restorative Sleep at Night	Lighting	Sedentary lifestyles in nursing home residents make them vulnerable to sleep disturbances and fragmentation of sleep. In this study they were able to make a marked improvement on the resident activities and social engagement by promoting physical movement. In doing so, they saw a marked improvement in sleep quality at night in those that participates in the activities that promotes physical movement.	Kuck, J., Pantke, M., & Flick U. (2014). Effects of social activation and physical mobilization on sleep in nursing home residents. <i>Geriatric Nursing</i> , Sept. 27, 2014.
Restorative Sleep	Restorative Sleep at Night	Lighting	Conclusion showed that by increasing walking opportunities there was an improvement in sleep quality and also an improvement in sundown syndrome. Physical exercise was found to improve both physical and mental status and function. The study noted that walking is a "simple, feasible, sustainable, and cost-effective form of exercise."	Shih, Y., Pai, M., Haung, Y., Wang, J. (2016). Sundown syndrome, sleep quality, and walking among community-dwelling people with Alzheimer disease. <i>AMDA. The journal of post-acute and long-term care medicine (JAMDA)</i> . May 2017 (Vol 18, No. 5) pp.396-410.
Restorative Sleep	Restorative Sleep at Night	High Density Foam Mattress	This study supports the use of a high density foam mattress as a strategy to protect skin integrity and allow longer periods for uninterrupted sleep at night.	Lundgren, Jeri, RN, BSN, CWS. <i>Wound Care Advisor</i> , "Turning Programs Hinder a Good Night's Sleep." March/April 2014, Vol. 3 No. 2. http://woundcareadvisor.com/turning-programs-hinder-a-good-nights-sleep-vol3-no2/
Restorative Sleep	Team-Based Approach	Staffing based on sleep/ wake schedules	Nursing and Nursing practices have a great impact on the opportunity for restorative sleep for their patients. Through the identification of poor sleep outcomes and monitoring, staff has a unique opportunity to modify the sleeping environment and promote positive outcomes.	Batten, L. & Minton, C. (2016). 'Appeared to sleep well: How much sleep has you patient had and why does it matter?'. <i>Nursingreview</i> (Issue 4). pp 15-18.
Fall Prevention	Daytime Active & Purposeful Engagement	Appropriate Bed Heights	Patients' needs and abilities must be assessed when considering bed and bed height. Beds must allow for safe ingress and egress for the individual that is utilizing the bed. When egressing patients should be able to sit to stand and maintain balance. When patient is sitting on the edge of their bed, with their knees bent at a 90 degree angle with feet firmly planted on the floor this is the safest height. For be to be maintained while both occupied and unoccupied.	Morse, J., Gervais, P., Pooler, C., Merryweather, A., Doig, A., Blowski, D. (2017). The safety of hospital beds: ingress, egress, and in-bed mobility. doi: 10.1177/2333393615575321
Fall Prevention	Daytime Active & Purposeful Engagement	Contrast in the Environment	In this study, it was found that compliant (shock absorbing) flooring increased the sway/ balance of patients with Parkinson's disease and healthy adults. The use of compliant flooring was inconclusive as to the benefits to risk verses benefits to those at risk for falls.	Beach, R., (2013). Effect of compliant floor on postural stability. 40005B7445E9F714

Fall Prevention	Daytime Active & Purposeful Engagement	Contrast in the Environment	It is important to consider the environment that an elderly adult resides in. Having contrast to the environment and ensuring level surfaces are primary factors to consider as a fall preventative measure. This in turn promotes a greater interaction between the elder and their environment, allowing them to engage as much as possible. There is correlation/ interaction noted of the elderly adult in terms of making adaptations to the environment verses not and as a result determines additional fall risk when the environment is not considered a vital part of fall prevention.	Leiva-Caro, J., Salzar-Goonzalez, B. (2015). Connection between competence, usability, environment and risk of falls in elderly adults. doi: 10.1590/0101-1169.0331.2659
Fall Prevention	Daytime Active & Purposeful Engagement	Strength and Balance Activities	Physical activity, including walking, is encouraged/ advised for the elderly and can be improved by gait stability. Environmental modifications, with the assist of an occupational therapist, should be practiced along with the exercise to increase lower body strength, regular vision checks, medication review by MD and frequent assessment for fall risk.	Ciprandi, D., Bertozzi, F., Zago, M., Ferreira, C., Boari, G., Sforza, C., Galvani, C. (2017). Study of the association between gait variability and physical activity. doi: 10.1186/s11556-017-0188-0
Fall Prevention	Daytime Active & Purposeful Engagement	Strength and Balance Activities	Physical exercise is one of the most important components in frailty prevention and treatment for older adults. Exercise promotes significant enhancement to muscle strength, muscle power, and functional outcome. Thus, reduces additional fall risk and is an effective fall intervention.	Lopez, P., Pinto, RS., Radaelli, R., Rech, A., Grazioli, R., Izquierdo, M., Cadore, EL. (2017). Benefits of resistance training in physically frail elderly; a systemic review. doi: 10.1007/s40520-017-0863-z
Fall Prevention	Daytime Active & Purposeful Engagement	Strength and Balance Activities	Through the use of a team-based approach to health promotion and exercise is vital in a successful fall prevention program. Evidence suggests that the most effective fall preventative initiatives are through a thorough review of and adjustment of medications and pharmacologic treatments, exercise programs, footwear modifications, Vitamin D to strengthen bones, correcting visual impairments, environmental modifications and interventions.	Reinoso, H., McCaffrey, R., (2017). Mitigating fall risk: A community fall reduction program. doi.org/10.1016/j.gerinurse.2017.08.014
Fall Prevention	Daytime Active & Purposeful Engagement	Strength and Balance Activities	The risk of falls in the elderly population can be predicted by the following factors: reduced muscle strength and impaired balance and gait. In this study, it was found that by promoting an exercise program, there was a positive effect on the improvement of the functional capacity and the balance of the elderly women who participated.	Trela, C., Forlini, C., Oliveira, S., Pereira, A., Dias, J., Cardoso, J., (2017). Effects of exercise program on risk factors of falls in the elderly, doi 10.4025/actahealthsci.v34ispec.11353
Fall Prevention	Daytime Active & Purposeful Engagement	Strength and Balance Activities	Through increase social engagement and by participating in community programs (including regular exercise groups) there is a substantial decrease in the risk of frailty amongst older adults. A decrease in frailty promotes increased muscle strength, gait and balance amongst elders in Japan.	Tsutsumamoto, K., Doi, T., Makizako, H., Suzuki, T., Shimada, H. (2017). Association of social frailty with both cognitive and physical deficits among older people; doi 10.1016/j.jamda.2017.02.005

Fall Prevention	Daytime Active & Purposeful Engagement	Alarm Elimination	This article suggests that bed alarm devices and alarm systems failed to include human factors/ and ergonomics in its design and implementation. That the human-device interaction is poor, noting that humans can be conditioned to not hear an alarm and that alarms create a false sense of security to professionals.	Author unknown (Jan. 2013). Why Bed alarms fail to reduce patient falls, Health Forum Magazine.
Fall Prevention	Daytime Active & Purposeful Engagement	Alarm Elimination	Educational programs for healthcare workers must include the reasons and rationale for restraint use as a means to prevent falls and as a means to improve quality of care. Policy and procedures in healthcare settings must address a common misbelief that that restraint use is an effective intervention to promote patient safety.	Farnina-Lopez, E., Estevez-Guerra, G.J., Polo-Luque, M.L, Hanzelikova Pogranyiva, A., Penelo, E. (2017). Physical restraint use with elderly patient: perceptions of nurses and nursing assistants in spanish acute care hospitals, doi: 10.1097/NNR.0000000000000252
Fall Prevention	Daytime Active & Purposeful Engagement	Alarm Elimination	Alarms use contributes to an unsafe environment and their use has resulted in an increase of fall incidence. To promote resident dignity and quality of life, bed and chair alarm use needs to be reviewed and ceased. Healthcare workers must think beyond the fall and apply root cause analysis when as to why a resident fell.	Horowitz, A.; (Dec. 2014). Personal resident alarm: more protection or more risk?, Legal Landscape Long-Term Living
Fall Prevention	Daytime Active & Purposeful Engagement	Medication Reduction	In this study, it was found that nursing home patients with a history of falls and high doses of CNS medication use (taking 3 or more standardized daily doses) had an almost two-fold increase in odds of a serious fall. Directive given to medical providers to be vigilant for the opportunity to discontinue or decrease dosages of CNS medications and consider non-pharmacological interventions as a means to decrease fall risk.	Hanlon, J., Zhao, X., Naples, J., Aspinall, S., Perera, S., Nace,D., Castle, N., Greenspan, S., Thorpe, C. (2017). Central nervous system medication burden and serious falls in older nursing home residents, JAGS 65:1183-1189.
Fall Prevention	Daytime Active & Purposeful Engagement	Removal of Floor Mats	The bevel-edged, bedside floor mat is a potential hazard for ambulatory patients, especially those with impaired gaits, using walkers and pushing mobile intravenous stands.	Doig, Alexa K. PhD, RN; Morse, Janice M. PhD (Nurs), PhD (Anthro), FAAN. The Hazards of Using Floor Mats as a Fall Protection Device at the Bedside. Journal of Patient Safety: June 2010 - Volume 6 - Issue 2 - p 68-75, doi: 10.1097/PTS.0b013e3181cb439a
Fall Prevention	Daytime Active & Purposeful Engagement	Hip Protectors	Randomized controlled trials of hip protectors have given contradictory results regarding their efficacy. There is little data is available of the cost effectiveness and adherence is a major problem in assessing the effectiveness of their use.	Cianferotti, L., Fossi, C., & Brandi, M.L., (July 2015). Hip protectors: are they worth it? doi:10.1007/s00223-015-0002
Fall Prevention	Daytime Active & Purposeful Engagement	Hip Protectors	Hip protectors are a promising technology for the prevention of hip fractures for frail elderly patients in LTC. There is a lack of data to show effectiveness of hip protectors due to lack of adherence in wearing the hip protectors, which was noted at 50% in the study.	Korall, A., Godin, J., Feldman, F., Cameron, I., Leung, P.M., Sims-Gould., Robinovitch. (2017). Validation and psychometric properties of commitment to hip protectors (C-HIP) index in long-term care providers of British Columbia, Canada; a cross-sectional survey. doi: 10.1186/s12877-017-0493-5
Fall Prevention	Know The Resident	Individual Risk Assessment	Having a comprehensive fall prevention strategy is feasible in the clinical and long term care setting. Upon admission or significant change is noted those at risk for falls must be identified using a comprehensive fall risk assessment.	Ko, F. (2017). STRIDE: A pragmatic trial of multifactorial fall injury prevention intervention. Strategies to Reduce Injuries and Develop Confidence in Elders.

Fall Prevention	Root Cause Analysis	Individual Risk Assessment	By utilizing Taxonomy II and NANDA-I as tools along with the Falls Risk Assessments in LTC, a team can best identify those who are likely to fall. These tools have shown a high efficacy regarding detection of elderly people at risk for falling and should be applied in clinical nursing practice.	Costa dos Reis, K., & Costa de Jesus, C". (2015). Cohort study of institutionalized elderly people: fall risk factors from nursing diagnosis.
Fall Prevention	Root Cause Analysis	Individual Risk Assessment	Evaluation and assessment is necessary to determine cause of syncope and unexplained falls in individuals with cognitive impairment. The study suggests that there is a correlation between cognitive impairment and syncope/ falling that could possibly e from the result of cardiovascular disease. Recommendation is given to utilize the MoCA over the MMSE for routine cognitive screenings of older patients that present with syncope and/ or unexplained falls as a way to assess.	de Ruiter, S., de Jonghe, J., Germans, T., Ruite, J., Jansen, R. (2016). Cognitive impairment is very common in patients with syncope and unexplained falls. AMDA, doi: 10.1016/j/jamda.2016.11.2012
Fall Prevention	Root Cause Analysis	Individual Risk Assessment	Results indicate that the Berg Balance Scale, Fullerton Advanced Balance Scale, Timed Up-and-Go, and Activity-Specific Balance Confidence Scale may be used to assess functional capacity, but not necessarily fall risk. That these tools should be used in conjunction with other fall risk assessment tools for evaluation of fall risk.	Dicke J.D. (2015). Discriminative ability of fall Risk outcome measures. 4DB5563ABE860CF4
Fall Prevention	Root Cause Analysis	Individual Risk Assessment	Through the use of the dynamic fall risk model (taking into account internal, external and operational) causation to falls, a tem can best individualize a person's care and ADL's to support their needs. A team must identify modifiable factors in relation to falls, as it is more difficult to modify intrinsic factors that can contribute to a fall.	Klenk, J., Becker, C., Palumbo, P., Schwickert, L., Rapp, K., Helbistad, Todd C., Lord, S., Kerse, N. (2017). Conceptualizing a dynamic fall risk model including intrinsic factors and exposures, doi: 10.1016/j.jamda.2017.08.001
Fall Prevention	Root Cause Analysis	Medication Reduction	Adverse outcomes related to an increase in falls were studies with 71,856 participants. Adverse outcomes and increase in falls with serious injury were noted with the elderly population when taking anticholinergic and sedative medication, noted polypharmacy. The Drug Burden Index (DBI) can be a tool that for clinicians to use to decrease polypharmacy and help reduce falls for older adults.	Jamieson, D., Nishtala, P.S., Scrase, R., Deely, J.M., Abey-Nesbit, R., Connolly, M.J., Hilmer, S.N., Abernethy, D.R., Schulluter, P.J., (Dec. 2017). Drug burden and its association with falls among older adults in New Zealand; A national population cross-sectional study. doi: 10.1007/s40266-017-0511-5
Fall Prevention	Root Cause Analysis	Medication Reduction	Use of loop diuretics were shown to significantly increase fall risk in older adults, while the use of antihypertensives were shown to not be statistically significant with recurrent falls.	Marcum, Z., Perera, S., Newman, A., Thorpe, J., Switzer, G., Gray, S., Simonsick, E., Shorr, R., Bauer, D., Castle, N., Studenski, S., Hanlon, J. (Aug. 2015). Antihypertensive use and recurrent falls in community-dwelling older adults: findings from the ABC study. doi: 10.1093/Gerona/giv095
Fall Prevention	Root Cause Analysis	Medication Reduction	This study found that by replacing and reducing use of diuretics, and replacing with spironolactone 12.5 mg on alternating days appeared to have contributed to a decrease in the incidence of falls and elimination of fall related injuries.	Okada, H., Okada, M., Kamada, N., Yamaguchi, Y., Kakehashi, M., Sasaki, H., Katoh, S., Morita, K. (2016). Reducation of diuretics and analysis of water and muscle volumes to prevent falls and fall-related fractures in older adults. doi: 10.1111/ggi.12719

Fall Prevention	Root Cause Analysis	Medication Reduction	Use of a high mean number of prescription medications are associated with increased falls in the elderly with Parkinson's disease. Comprehensive medication reviews that consider use of the BBERS criteria and polypharmacy are needed as a part of the multifactorial fall prevention in patients with Parkinson's disease.	Yusupov, E., Chen, D., & Krishnamachari, B. Medication use and falls: Applying BEERS criteria to medication review in parkinson's. doi: 10.1177/2050312117743673
Fall Prevention	Root Cause Analysis	FSI Form	The standard of care to evaluate staff knowledge of falls in LTC rests on administration of knowledge tests that should follow continuing education programs. All nurses working in LTC settings should possess scientific knowledge about the multifactorial causation to falls and be able to apply RCA and critical thinking skills to assess the situation/ fall.	Gray-Miceli, D., de Cordova, P., Crane, G., Quigley, P., Ratcliffe, S., (2016). Nursing home registered nurses' and licensed practical nurses' knowledge of causes of falls, Wolters Kluter Health, J Nurs Care Qual; (Vol 31). No. 2., pp 153-160.
Fall Prevention	Root Cause Analysis	Fall Huddle	Application of investigation practices are essential to gathering clues to determine the root cause. Interviewing individuals who were present at the time of or just before a fall should be interviewed as they may have important information to determine fall causation.	Dan J. Sheridan PhD, "Falls & Accidents Prevention" Workshop Conducted on December 4 & 5, 2007 for Empira. Eden Prairie, MN.
Fall Prevention	Team-Based Approach	Rounding on the 4 P's	Evidence-based research indicates that by utilizing and following through with the practice of the 4 P's with hourly rounding decreased fall rates, decreased skin breakdown rates, and increased both patient and staff job satisfaction.	Mercer, J., Fagan, C.; (2010). Hourly Rounding-The 4 P's", Peninsula Regional Medical Center
Fall Prevention	Team-Based Approach	Fall Committee	Use of interdisciplinary falls teams are the key to successful falls prevention programs. The falls team should include: a clinical nurse specialist, Nurse Managers, RN's, Nursing Assistants, LPN's, Pharmacist, Rehabilitation Therapists, Physician/ nurse practitioner.	Author unknown. (June 20, 2014). Falls Team, Veteran's Affairs Fall Protocol
Fall Prevention	Team-Based Approach	Fall Committee	A Fall Committee must contain an interdisciplinary approach to ensure effectiveness in fall prevention.	Boockvar, K., (2017). Interdisciplinary approaches for preventing delirium and falls in the nursing home setting", HELP (Hospital Elder Life Program).
Fall Prevention	Team-Based Approach	Fall Committee	Falls prevention requires a multidisciplinary approach to create a safe environment for the patient and to reduce potential injuries as the result of a fall. Nurses' education to a fall prevention program are vital in preventing falls in LTC settings.	Chu, R. (March 2017). Preventing in-patient falls: The nurse's pivotal role", Wolters Kluter Health; retrieved from: www.Nursing2017.com
Behavioral Expressions	Know The Resident	Know The Resident	Knowing residents, who they are now and who they were, is fundamental to understanding their actions and reactions. Providers should learn the following things about a person to know them better life story, identify, greatest accomplishments, non-negotiables, and comfort preferences.	CMS. (2015). CMS Hand in Hand: A Training Series for Nursing Homes Toolkit. Retrieved April 2016 from https://surveyortraining.cms.hhs.gov/pubs/HandinHand.aspx
Behavioral Expressions	Root Cause Analysis	Behavior Expression Worksheet	Using a team based approach tool to identify the unmet need of a resident with behavioral expressions can be helpful.	CMS. (2015). CMS Hand in Hand: A Training Series for Nursing Homes Toolkit. Retrieved April 2016 from https://surveyortraining.cms.hhs.gov/pubs/HandinHand.aspx
Behavioral Expressions	Daytime Active & Purposeful Engagement	Environmental Cueing	Creating an environment that has respect, is calm, and provides for meaningful activities is a key indicator of the Montessori prepared environment. Environments are also aesthetically beautiful, displayed, maintained, free of clutter, and accessible at all times to persons receiving care.	Brush, J. (2016). Montessori for ageing and dementia. Association Montessori Internationale.

Behavioral Expressions	Daytime Active & Purposeful Engagement	Environmental Cueing	In this study, healthy older adults and those with dementia were studied. In the persons with dementia a noted improvement to their cognitive and perceptual functioning was noted thru the use of training and exercises of both sensory and motor cognitive-oriented stimulation. The study suggests that enriched environments and interactions, increased socialization in the community exposes individuals with both cognitive and sensory stimulation and helps maintain an overall sense of well-being.	Galdino De Oliveira, T., Soares, F., De Macedo, L., Wanderley, DD., Diniz, P., Bento-Torres, N., & Wanderley Picanco-Diniz, C. (2014). Beneficial effects of multisensory and cognitive stimulation on the age-related cognitive decline in long-term-care institutes. DovePress. Clinical Interventions in Aging. Doi:10.2147/CIA.S54383
Behavioral Expressions	Daytime Active & Purposeful Engagement	Environmental Cueing	Having the opportunity to maintain a sense of purpose through meaningful activity has an effect on dignity and selfhood." Creating opportunities for meaningful, purposeful engagement is needed for individuals with dementia, and having an opportunity (invitation) to participate draws a person out of their "shell" and allows them the opportunity to participate. Going from and inactive observer to a willing participant.	Roach, P. & Drummond, N. (2014). 'It's nice to have something to do': early onset dementia and maintaining purposeful activity. Journal of Psychiatric and Mental Health Nursing, 2014, 21, 889-895. John Wiley & Sons Ltd.
Behavioral Expressions	Daytime Active & Purposeful Engagement	Environmental Cueing	Residents in nursing homes, especially those affected by dementia, need opportunities for engagement above and beyond scheduled activities and routine care. Having a choice of an activity can provide a sense of purpose when a resident is able to create something, use a skill from their past or former work, and/ or makes a contribution.	Tak., S., Kedia, S., Tongumpun, & Hee Hong, S. (2014). Activity engagement: Perspectives from nursing home residents with dementia. Educational Gerontology, 41: 182-192. Taylor & Francis Group. doi: 10.1080/03601277.2014.937217
Behavioral Expressions	Daytime Active & Purposeful Engagement	Aromatherapy	Essential oils were utilized at night/ bedtime. Total sleep time was noted to be significantly longer during the testing period and early morning awakenings were also significantly less. Results indicated a positive effect of overall improved sleep and less insomnia.	Takeda, A., Watanuki, E. & Koyama, S. (2017). Effects of inhalation aromatherapy of symptoms of sleep disturbances in the elderly with dementia. Evidence-Based Complementary and Alternative Medicine. Vol. 2017. Article ID 1902807. doi: 10.1155/2017/1902807
Behavioral Expressions	Daytime Active & Purposeful Engagement	Aromatherapy	After a four-week study, findings concluded that aromatherapy used to manage pain in older adults was effective as a nonpharmacological intervention. Aromatherapy was also noted to be effective in cases of depression, anxiety, and stress levels in the intervention group of older adults. Also noted was improved psychological health in the older adults mentioned in this study.	Tang, S. & Mimi Tse, M. (2014). Aromatherapy: does it help to relieve pain, depression, anxiety, and stress in community-dwelling older person? Hindawi Publishing Corporation. BioMed Research International. Vol.2014. Article ID 430195. doi: 10.1155/2014/430195
Behavioral Expressions	Daytime Active & Purposeful Engagement	Aromatherapy	Aromatherapy is an effective adjunctive therapy to address memory problems, sleep problems, affect appetite, stimulate immune systems, promote healing, reduce stress, and decrease anxiety.	Weihbrecht, L. (2018). Clinical aromatherapy. Today's Geriatric Medicine. Vol. 7 (4) 30. Retrieved from www.todaygeriatricmedicine.com/archive/0714p30.shtml on Jan. 20, 0218.
Behavioral Expressions	Daytime Active & Purposeful Engagement	Music & Memory	Music can be utilized as an intervention and treatment option for those suffering from depression among all age groups of those studied. "Music connects us to the time when we only had preverbal communication skills, without being dependent upon language as a form of communication" (Hwang and Huges).	Leubner, D. & Hinterberger, T. (2017). Reviewing the effectiveness of music interventions in treating depression. Frontiers in Psychology; July 2017. doi: 10.3389/fpsyg.2017.01109

Behavioral Expressions	Daytime Active & Purposeful Engagement	Music & Memory	In this study, participants and caregivers were both assessed. Of note, caregivers reported less caregiver distress (including emotional burden, relationship distress, and feelings of helplessness). Caregivers reported that the personalized music supported them in caring for their loved one, and also brought their loved one more pleasure.	Quinn-Lee, L. (2016). Music and memory iPod Eau Claire community project results. Published March 2016, P-01594A.
Behavioral Expressions	Daytime Active & Purposeful Engagement	TimeSlips	TimeSlips promotes nurturing communication and relationships between participants and the facilitators. TimeSlips create a sense of value, meaning and purpose through creative story telling.	Author Unknown. Time Slip: Resources. Retrieved from www.timeslips.org/for-facilitators Retrieved on Jan. 21, 2018.
Behavioral Expressions	Daytime Active & Purposeful Engagement	Drumming	In the study, results indicated that group drumming reduced depression and anxiety in those that participates, along with social resilience in a 6-10 week time span. The study highlighted the effectiveness and practicality of group drumming as being cost-effective for mental health patients.	Fancourt, D., Perkins, R., Ascenso, S., Carvalho, L. Steptoe, A., & Williamon, A. (2016). Effects of group drumming interventions on anxiety, depression, social resilience and inflammatory immune response among mental health service users. PLOS One 11:3:e0151136. doi: 10.1371/journal.pone.0151136
Behavioral Expressions	Know The Resident	Know the Resident	Use of an "All About Me Board" was found to help staff members initiate conversations, especially with individuals with dementia. It was noted to help nurses and staff members better understand and implement nursing interventions to improve overall care and care needs. Having the board physically visible in the patients room allowed staff to have easy access to reading the information.	Fick, D., DiMeglio, B., McDowell, J., & Mathias-Halpin, J. (2013). Do you know your patient?: Knowing individuals with dementia combined with evidence-based care promotes function and satisfaction in hospitalized older adults. Journal of Gerontological Nursing, 2013 Sept: 13 39(9) 2-4. doi: 10.3928/00989134-20130809-89
Behavioral Expressions	Know The Resident	Know the Resident	Every nurse should have the ability to "Know the Patient" both clinically and personally. By writing down patient information (personal and clinical) in a place that allows for information to be shared with all caregivers and efforts to embed Know the Patient into EHRs verses paper-form are far more effective in capturing the information and allows for the information to be shared without being lost.	Kelley, T., Docherty, S., & Brandon. S. (2014). Information needed to support knowing the patient. ANS Adv Nurs Sci. doi:10.1097/ANS.000000000000006
Behavioral Expressions	Know The Resident	Know the Resident	In this study, it proved that knowing the residents your provide care for,, along with person-centered care provide for the best resident satisfaction in care. By understanding and incorporating the residents' perspectives in care one can provide care for the whole person, and in turn best meet the needs of the person.	Poey, J., Hermer, L., Cornelison, L., Kaup, M., Drake, P., Stone, R. & Doll, G. (2017). Does person-centered care improve residents' satisfaction with nursing home quality? Journal of post-acute and long-term care medicine.(JAMDA). doi: 10.1016/j.jamda.2017.06.007
Behavioral Expressions	Team-Based Approach	IDT approach to BEW	In this article Dr. Juman states that "A holistic and resident-centered approach to unwanted behavior is one that assumes that any behavior is goal-directed and meaningful in some way for the resident." Behavior occurs, the behavior should be viewed as a form of communication by team members, and when an unwanted behavior occurs, the team should get to the root cause of the behavior to best determine the solution or intervention.	Juman, R. (2018). Understand the resident to understand the behavior: part 2. McKnight's Long-Term Care News. Published on Jan. 8, 2018.

Behavioral Expressions	Team-Based Approach	Pain Management for cognitive impairment	Evidence shows that there is a lack of effective assessment and treatment in a range of clinical settings when it comes to managing pain in people affected by dementia. Pain is common among the elderly population because of age-related conditions. Due to loss of communication with later stages of dementia, pain can often be overlooked and can present in behaviors (agitation and withdrawing).	Achterberg, W., Piper, M., van Dalen-Kok, A., de Waal, M., Husebo, B., Lautenbacher, S., Kunz, M., Scherder, E., & Corbett, A. (2013). Pain management in patients with dementia. <i>Clinical Interventions in Aging: Dove Press</i> . doi: 10/2147/CIA.536739
Behavioral Expressions	Team-Based Approach	Pain Management for cognitive impairment	In this study, in community-dwelling older adults with dementia, findings indicated that many go underdiagnosed and untreated for pain. Nonpharmacological interventions for pain are often under-utilized. Findings a lack of pain recognition and the under use of appropriate tools to assess for pain as a barrier to pain management.	Li, J., Snow, A., Wilson, N., Stanley, M., Morgam, R., Sangiry, S., & Kunik, M. (2015). The quality of pain treatment in community-dwelling persons with dementia. <i>Dementia and Geriatric Cognitive Disorders</i> . <i>Dement Geriatr Cogn Disord Extra</i> 2015; 5:470-481. doi: 10.1159/000441717
Behavioral Expressions	Team-Based Approach	Pain Management for cognitive impairment	In LTC, 80% of residents are in acute or chronic pain. Because of this, this study suggests that 80% of the time, we as caregivers should be thinking about pain and addressing needs. Individual pain needs/ assessments must be done routinely and nursing staff should be known as "pain interpreters" or "needs interpreters" for those that they provide daily care for.	Peisah, C., Weaver, J., Wong, L. & Strukovski, J. (2014). Silent suffering: a pilot study exploring gaps between theory and practice in pain management for people with severe dementia in residential aged care facilities. <i>Clinical Interventions in Aging</i> . 2014;9; 1767-1774. doi: 10.2147/CIA.S64598
Behavioral Expressions	Team-Based Approach	Pain Management for cognitive impairment	In residents that were able to report their pain (less cognitive impairment) they were able to self-report pain and noted to have a higher prevalence of pain, verses those with increased cognitive impairment. Focus to manage pain for those with increased cognitive impairment is paramount to pain management, and using more tailored approaches to manage pain on an individual bases provides for improved pain management.	Van Kooten, J., Smalbrugge, M., van der Wouden, J., Stek, M. & Hartogh, C. (2017). Prevalence of pain in nursing home residents: The role of dementia stage and dementia subsets. <i>Journal of post-acute and long-term care medicine</i> . (JAMDA). doi: 10.1016/j.jamda.2016.12.078
Behavioral Expressions	Team-Based Approach	Pain Management for cognitive impairment	Older adults often have reduced nociceptive capabilities (feel less pain) but suffer from more than one disease, take many medications of different classes, and often rarely report alarming symptoms. Treatment is often complicated by a diminished cognitive capacity, by neuropathic pain, or other chronic conditions. Different approaches should be taken when evaluating pain in the elderly patient.	Yanev, N. & Vlaskovska, M. (2016). Pain in elderly has often been underestimated. <i>Journal of IMAB. Annual Proceeding (Scientific Papers)</i> 2016. Vol. 22 (2). doi: 10.5272/jimab.2016222.1149
Behavioral Expressions	Team-Based Approach	Dementia Simulation	The dementia tour experience allows for caregivers and individuals to better understand people with dementia and their needs. This simulation helps to create a better understanding by utilizing sensory tools and instructions create a simulation of what it may feel like to have dementia.	Author Unknown. "Virtual dementia tour-dementia sensitivity program. Retrieved from: www.programsfortheelderly.com/memory-virtual-dementia-tour-sensitivity-training Retrieved on Jan. 21,2018.
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