Date: Oct 22, 2019

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All resources are posted in the COP website, under Long-Term Care Resources "Session 05: Falls/Bone Health– Oct 22, 2019". You must be logged in to view the resources.

Case Synopsis:

74 year-old female resident admitted in 2017 with diagnosis of Advanced Dementia. In the last 6 months she has had 19 falls without injury and 5 falls with injury. There was one fall prior to April 2019. Syncope vs seizure activity were staff thoughts at the time. She was assessed in ER with no significant findings on CT scan of head but had bradycardia and run of SVT with stable vitals signs. Returned to home with diagnosis likely syncopal episode, Head injury routine observed for 24 hours post fall. She was noted to be bradycardia at times.

Questions:

1. What fall prevention strategies may have been more successful in preventing her falls?
2. Are other facilities concentrating more on fall prevention or injury prevention with falls?
3. Is there strong evidence that vitamin D would prevent fractures? When polypharmacy or medication compliance is an issue, Vitamin D tends to be discontinued as a non- essential drug, should it be?
4. One injury prevention strategy was for resident to use a bicycle helmet to prevent head injury if she fell. Is this a commonly used strategy in other facilities?

Summary of Recommendations:

Further workup/investigations:

- Fracture Risk Scale is validated to predict hip fracture over a 1-year time period using risk factors specific to long-term care residents and does not require a Bone Mineral Density

Non-Pharmacological interventions:

- There is evidence to support hip protectors for residents who are mobile and at high risk of fractures
- Bed alarms although commonly used may alert staff of the fall rather than giving staff an opportunity to prevent a fall; education for families is important
- An individualized approach with use of helmets and physical restraint application e.g., using a wheelchair seatbelt to increase mobility and quality of life for the resident vs restricting movement which may increase falls with injury
- Falls mat may be used if there is an issue of her rolling out of bed
- If de-prescribing of medications is appropriate, may consider dietitian referral to optimize dietary sources of Calcium and Vitamin D
- Occupational therapy involvement for environmental assessment and modification to reduce falls risk
- Review of Falls Prevention program to assess current measures in the long-term care home using an interdisciplinary team approach

Pharmacological interventions:

- For residents at high risk for fracture, Vitamin D reduces falls by 15% in 1000 people. For those who are low risk for falls, Vitamin D reduces falls in 5% out of a 1000 people
- Discussion of de-prescribing of certain medications including cognitive enhancers by engaging the family/SDM in a discussion and counselling considering goals of care and person-centered care
- Calcium and Vitamin D might be an opportunity to reduce polypharmacy based on resident's goals of care and if dietary sources are sufficient. Also, if bisphosphates are discontinues, they continue to work by suppressing the activity of the osteoclasts for months to years
- Teriparatide is covered under the Exceptional Access Program (EAP) using strict criteria including: presence of osteonecrosis of the jaw or atypical femur fracture due to an anti-resorptive agent; BMD T-score less than or equal to -3; and a prior fragility fracture. Teriparatide costs approximately $900 per injection and is covered by EAP for a period of 24 months