Evidence for Falls Risk Prevention/Intervention Bundled Benefit:

A third of individuals over the age of 65 will fall this year, many of these resulting in life-changing or life-ending injuries (Tinetti, Speechly, & Ginter, 1988; Hausdorff, Rios, & Edelberg, 2001). Preventative measures are desperately needed. Many studies establish fall-risk criteria that are warning signs for an impending fall. These include a history of falls, certain psychotropic meds or poly-pharmacy, as well as certain acute or chronic medical problems (AGS, 2001; Campbell, et al, 1990; Chu, 2005; Ray et al, 1987; Leipzig, 1999; Tromp, et al, 2001). When these risk factors are present, interventions can be implemented to reduce the occurrence of falls.

The American Geriatrics Society and the British Geriatric Society have reviewed the available evidence and released guidelines that outline evidence-based interventions for falls in older adults. The two most highly recommended interventions are that of home safety assessment/modification and exercise for balance, strength and gait training.

Many physical interventions such as strengthening as well as balance and gait training have shown much support in the literature. Programs designed and implemented by a physical therapist (PT) that focused on stretching major joints of the body (neck, shoulders, hips, and ankles), muscle strengthening (especially trunk and leg muscles), and balance training (including agility and coordination) have shown to reduce the risk of falling significantly (Lin, 2007; Liu-Ambrose, 2004; Campbell, 1997; Campbell, 1999).

Adaptations or modifications of the home environment to remove hazards have shown effective when preformed by a trained occupational therapist (OT). Home modifications in of themselves or when provided by another professional, have not shown the significant change that is needed to make this a recommended intervention. However, when implemented with the expertise and training of an OT, the fall risk is greatly decreased and shows cost effectiveness in several studies. Studies using environmental checklists or evaluations from nurse practitioners or providing educational materials only do not produce the same positive results. Specific interventions used by the OTs in the studies examined included provision or recommendation of DME (such as bath benches and grab bars), removal of hazards (such as loose carpeting and clutter), as well as behavioral training (such as energy conservation techniques and strengthening) (References).
A commonly recommended environmental modification in the home is the use of bathroom safety equipment (such as grab bars and shower benches). Falls that occur in bathtubs and showers resulted in 5% of non-fatal injury costs in older adults in 2000, a cost of over $9 billion. Among the elderly, home structures including bathtubs and showers dominate the top consumer products that result in injury by causing falls (Zaloshnja, Miller, Lawrence, and Romano, 2005). By providing simple home safety equipment such as grab bars and shower benches, the risk of falling in the bath could be addressed and be made safer for older adults (AGS, 2001).

Provision of Vitamin D supplements of at least 800 IU per day should be provided to older persons with proven or suspected vitamin D deficiency according to the latest AGS/BGS guidelines. Studies have shown the fall rate of older adults cut in half after beginning supplements of vitamin D (Bischoff, Stähelin, & Dick, 2003, Bischoff-Ferrari, Dawson-Hughes, Willet, 2004; Broe, 2007;Drinka, 2007;Flicker, 2005;Latham, 2003;Pfeifer, 2000;). Vitamin D is not currently covered under any Medicare prescription plan and when finances become tight, may be the first to be cut when an individual fills their prescriptions.

Community-based fall programs are showing promising results from various CDC funded studies. Four of the most promising programs are the Tai Chi for Better Balance (Wolf, et al., 1996), Matter of Balance (Healy, et al., 2008) Otago Exercise Program (Cambell et al, 2002; Robertson, et al., 2001) and Stepping On (Clemson, et al, 2004). All have been recommended by the CDC as model community fall-prevention programs. These programs have been shown to reduce the risk of falling in participants by 30%- 55% during the duration of the program. Guides and training manuals are available for senior centers and community organization who want to replicate these successful programs in their area (CDC, 2010). Common characteristics of these programs are their focus on exercise that is tailored to the individual, a support system of other older adults and a convenient, central location for individuals to participate.

When these interventions are given together as a multi-factorial treatment, they are shown to be extremely effective. Studies show that significant reduction in fall risk occurs when given intense physical rehab, home modification and safety assessment, and vitamin D supplements. Although these studies cannot tease out which interventions are the most effective, they do show greater results than studies on individual interventions alone. This leads us to believe that to combat the issue of falls in older adults, one intervention may not be enough to make an impact- multiple interventions should be coordinated as the needs of the individual dictate.

After reviewing the above evidence and recommendations from reputable sources, it is recommended that a falls risk prevention/intervention benefit which includes occupational, physical/therapy, durable medical equipment (such as bathroom safety items) and vitamin D, and coordinated referral to community based fall prevention programs be created. The benefit could be triggered by identification of falls risk (V15.88) and would include services from those listed which address the beneficiary’s falls risk factors and would be covered even in the absence of a specific “medically necessary” diagnosis. The DME component would include mobility devices regardless of prior receipt and would also include bathroom safety devices which have assigned HCPCS codes. Where evidence-based fall prevention programs are available, any beneficiary deemed able to participate would be referred to such programs.

References:
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Campbell (1997)
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