STATE OF MARYLAND

NOV 30 2012

The Honorable Peter A. Hammen, Chair
House Health and Government Operations
Committee
Lowe House Office Building, Room 241
Annapolis, MD 21401-1991

RE: 2012 Report and Recommended Protocol for Home Safety Inspections for Seniors

Dear Chairman Hammen:

In response to the House Health and Government Operations Committee's request to the Departments of Aging and Health and Mental Hygiene to collaboratively develop a statewide protocol for home safety inspections for seniors who are discharged from the hospital following a fall, please find attached that workgroup's final report and recommended protocol. If you have any questions regarding this report, please do not hesitate to contact Ms. Marie Grant, Director of Governmental Affairs at the Department of Health and Mental Hygiene, at (410) 767-6481.

Sincerely,

Joshua M. Sharfstein, MD
Secretary
Department of Health and Mental Hygiene

Gloria G. Lawlah
Secretary
Department of Aging

Enclosure

cc: Marie Grant, JD
Frances B. Phillips, RN, MHA
Donna Gugel, MHS
Judy Simon, MS, RD, LDN

MARYLAND DEPARTMENT OF AGING
MARYLAND DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Workgroup Report and Recommended Protocol for Home Safety Inspections for Seniors

November 2012

Gloria G. Lawlah
Secretary
Department of Aging

Joshua M. Sharfstein, MD
Secretary
Department of Health and Mental Hygiene

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Background

House Bill 665 (2012), the Senior Falls Prevention Act, proposed that: 1) the Secretary of the Department of Aging and the Secretary of the Department of Health and Mental Hygiene jointly develop a statewide protocol for home safety inspections for seniors discharged from the hospital following a fall and submit the report to the General Assembly; and 2) the Governor proclaim one week each year as Fall Prevention Awareness Week. Although the bill did not pass, the House Health and Government Operations (HGO) Committee requested the Departments move forward in developing the protocol, and submit it to the HGO Committee prior to the 2013 legislative session.

Staff from the Department of Aging (MDoA) and the Department of Health and Mental Hygiene (DHMH) identified professionals working directly or indirectly on fall prevention, and invited them to serve on a multi-disciplinary, multi-agency workgroup to develop the protocol (see Appendix A). Specialty areas represented on the workgroup include: geriatric medicine, pharmacy, optometry, physical therapy, health care agency administration, home care, social work, and nursing. A list of workgroup members is included in Appendix B.

The workgroup held three meetings from August - October 2012, at which time group members agreed that the charge of the group had been carried out and that no additional meetings were needed.

Development of the Protocol

Falls are costly to the health care system. According to Maryland Health Services Cost Review Commission (HSCRC) seniors visited the emergency room 28,224 times in 2010 with fall-related injuries at a cost of over $19M. Of those injuries, 4,043 (14.3 percent) occurred in the home. HSCRC hospital discharge data for the same year show that 16,162 fall-related injuries resulted in hospitalizations for seniors, resulting in $229M in hospitalization costs. Thirty-three percent of these falls occurred in the home. Based on economic costs and the severe impact a fall can have on a senior's quality of life, the goal of the workgroup was to create a protocol that would be useful as both a primary and secondary prevention measure in reducing the incidence of falls.

A prior fall is a risk factor for a subsequent fall, and the home environment contains many possible risk factors for falls. Literature review indicated multifactorial or comprehensive approaches to fall prevention - which include home environment assessments, medication management, vision screening, and exercise - to be most effective. A subgroup of the workgroup was formed to review existing protocols (listed below) and draft recommendations for review by the full group.

- Fall Prevention Checklist - Easy Living, Inc.
- Fall Prevention Home Safety Checklist - Minnesota Safety Council
- GEM (Gerontological Environmental Assessment) – Weill Medical College
- HOME FAST (The Home Falls and Accidents Screening Tool) – Mackenzie, Byles, Higginbotham

- A Home Prevention Checklist for Older Adults - Centers for Disease Control and Prevention's (CDC) National Center for Injury Prevention and Control
- Home Safe Home Checklist - Baltimore County Health Department

The protocols reviewed included environmental assessments, medication management, and vision screening, but omitted exercise because that is prescribed on an individual basis by the physician or therapist.

The final protocol approved by the workgroup utilizes a comprehensive approach, and includes home environment assessment, medication management, vision screening, as well as an assessment of gait and balance. The format of the checklist document includes space for detailed comments about each identified risk, and is designed so as to require the individual completing the assessment to walk through every room frequented by the senior, helping to identify risks throughout the home. An outdoor component of the assessment was considered, but because the amount of time spent outdoors varies greatly between seniors, the workgroup determined that the outdoor component should be conducted on a case-by-case basis depending upon how much time the individual senior spends outdoors.

Provider Education and Conclusion

Home safety inspections are part of home care. A physician must first recommend home care to a patient before a home safety inspection can take place. Outreach to physicians to inform them of the protocol will be critical, as they will need to be aware of the protocol in order to recommend it be used as part of home health care. Nurses, physical therapists, or occupational therapists are generally responsible for home care visits, so it will be important to educate these allied health professionals as well. Facilities that opt to use this protocol will need to educate their staff. The intention is that this tool will be useful for seniors released from any health care facility, not just hospitals.

Even with the development of this protocol some obstacles to completing necessary repairs may still exist. Two major issues affecting home modifications are resource availability and affordability. Patients and their families may not have the financial or other necessary resources to complete recommended repairs. In these instances providers making the repair recommendations may ask the patient to sign a document acknowledging that they are aware of the recommendations; at this point, it is up to the senior or their caregiver to take responsibility for making the modifications. If there is imminent risk to the senior then a referral to Adult Protective Services should be initiated.

According to the CDC, falls are very preventable. However, the incidence of falls is still considerably high. This protocol is intended to serve the dual functions of assessing the home and educating individuals. This protocol can also be used as an education tool for community efforts to reduce falls. Components of the protocol raise awareness of items that may put a senior at risk for falls so that modifications to the home environment can be made. Significant reductions in falls are most likely to come from a comprehensive prevention approach that is implemented over time.

Recommendations

- **Home Environmental Assessment**

The *Fall Prevention Home Safety Checklist* (see Appendix A) should be utilized when a home inspection is performed by home care professionals. Consistent with the original proposed legislation, home inspections by home care professionals *are not mandated* for seniors after a fall-related discharge from a facility because: 1) coverage of home care services varies between insurance providers, and 2) liability issues may arise in instances where home modifications are recommended by a home care professional, but not implemented by individuals or their families. There are a variety of reasons why modifications might not be made, including availability of resources (home repair skills, funds to pay for contractors, etc). The Task Force to Study Renovation and Repair Needs of Senior Homeowners (HB 991, Ch. 695 of the Acts of 2012) convened to study the needs of low-income seniors with regard to home repairs and home safety, and MDoA and DHMH both have staff represented on that task force.

The protocol developed by the workgroup should be recommended for use by all health care facilities serving seniors, and implemented by home care personnel if and when a home safety inspection is to be part of the home care visit. The Maryland Hospital Association, Health Facilities Association of Maryland, and the Elizabeth Cooney Personnel Agency were represented on the workgroup; these entities can recommend the tool to the facilities that they work with directly.

Home care is considered intermittent care, and only a small portion of the senior population in the state is eligible for home care. For this reason the protocol was designed to be usable by seniors acting autonomously or their caregivers. Based on this information the workgroup recommends that a separate, similar, user-friendly checklist be developed and disseminated by health care professionals and facilities as a preventative educational tool for seniors and their families. In addition, the workgroup agreed that a comprehensive approach to fall prevention is warranted, and the protocol should be accompanied by supplemental information to educate seniors and their families on ways to prevent falls in the home. A list of web resources is included in Appendix D of this report.

- **Medication Management**

Medications should be reviewed for their potential to contribute to fall risk. Doses should be reduced or discontinued if appropriate. Seniors should designate one person to assist in medication management, and should use only one pharmacy. Seniors should inform all of their medical providers of all the medications they take. If a medication that increases fall risk is required, the workgroup recommends initiating treatment with a low dose, and if necessary gradually increasing under close monitoring. There are specific medications that place seniors at risk for falls, including: antidepressants, benzodiazepines, hypnotics, antipsychotics, anti-arrhythmics, analgesics, anticonvulsants, diuretics, alpha-blockers, beta-blockers, nitrates, vasodilators, antihistamines, oral anti-diabetics, calcium channel blockers, and cardiac medications.

Some supplements may help to reduce the risk of falls, or make the body stronger and less likely to sustain injuries when falls do occur. Studies have shown a beneficial effect from vitamin D or its metabolites on muscle strength and balance. A recent evidence review conducted for the U.S.

Preventive Service Task Force concluded that vitamin D supplementation can help reduce falls and is safe for most older adults. In addition, vitamin D helps the body to absorb calcium, the mineral that aids in the development and maintenance of strong bones. Strong bones are less likely to break or fracture when falls do occur.

- **Assistive Devices**

Assistive devices such as crutches, canes, and walkers can make walking easier for seniors. Both proper fit and instructions on use are required to ensure safe use. Falls related to the use of assistive devices are the cause of many emergency department visits for older adults. Risks can be minimized by having the prescribing health care provider instruct in safe and proper use of the device.

- **Vision Examinations**

Seniors should have a Comprehensive Eye Examination every 12 months, following any subjective report of change in vision, or following any acute adverse health event (e.g. stroke, uncontrolled diabetes, etc.). Comprehensive Eye Examination is defined by the American Medical Association's (AMA) Current Procedural Terminology (CPT) coding as including:

- Assessment of visual acuity
- Peripheral vision by confrontation visual field testing (and any additional testing if a defect is noted)
- Binocularity and muscle balance testing
- Test-corrected acuity

  And if a new pair of glasses are recommended:
    - Clarity of optical pathway (the presence of cataracts is a risk factor for falls)

Proper fit of eyewear is also important, especially if eyewear is needed by the patient when getting up in the middle of the night for bathroom use.

*** Outdoor Safety**

Time spent outdoors will vary from senior to senior. If a senior does spend time outdoors, ensure that stair railings are secure, and areas are well-lit to avoid hazards during the night. Access ramps and non-slip surfaces can also be effective strategies for avoiding falls.

Appendix A

Fall Prevention Home Safety Checklist

Please use this checklist to assess the home. Write Yes/No/NA in the boxes provided.
If you answer "No" (which indicates a problem) please provide details at the bottom as to the nature of the problem

		Bedroom	Entrance & Halls	Stairs & Floors	Kitchen	Bathroom	Living Area #1	Living Area #2	Other
LIGHTING	1. Are there light switches at entry?								
	2. Is the area well lit?								
	3. Are there any night lights?								
FLOORING	1. Is there level flooring? (tiles, carpet, linoleum, or hardwood)								
	2. Is the flooring secure? (free of scatter rugs)								
	3. Is there a slippery surface? (wet, wax, oil, soiled, etc.)								
	4. Is the flooring free of clutter? (hazards such as electrical cords exposed or unexposed, any other hazards)								
	5. Are stairs in good repair?								
	6. Is there a clear outline of the steps?								
RAILS & SUPPORTS	1. Are handrails properly installed and/or placed?								
	2. Are there any other supports present?								
	3. Are there non-slip adhesive surfaces, shower benches, elevated toilets or seats?								
	4. Is all furniture (including step stools) stable and secure?								

OTHERS	1. Has patient been evaluated for balance, strength, and overall well-being?	Yes No	5. Does the patient use an assistive device?	Yes No
	2. Have patient's medications been reviewed by a doctor/pharmacist within in the last 6 months?	Yes No	6. Has patient been trained in the use of the assistive device?	Yes No
	3. Is the patient able to take medicines appropriately?	Yes No	7. Is patient wearing appropriate clothing?	Yes No
	4. Has the patient had a comprehensive vision check within the last year?	Yes No	8. Is patient wearing proper shoes?	Yes No

NOTES: ____

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Summary of Recommendations

Lighting

- ✓ Light switches should be located at the top and bottom of stairs, and three-way switches should be utilized.
- ✓ Outline of steps should be easily visible.

Flooring

- ✓ "Good repair" of the stairs - No broken or uneven steps/stairs.
- ✓ Carpet should not be loose, torn, or uneven.
- ✓ Pathway should be free of clutter (i.e. scatter rugs, exposed electrical cords, etc.).

Railing/Other Supports

- ✓ Ensure handrails are secure and not too big for gripping.
- ✓ Bedrails and/or other supports in other living areas should be properly installed.

Personal Risk Factors

- ✓ Clothing and shoes - Wear proper shoes that have non-skid soles and/or shoes with velcro or fabric fasteners; avoid lace-up shoes, heels, and flip-flops. Avoid pants or dresses that are too long.
- ✓ Keep cell phone or cordless phone on person at all times.
- ✓ Drink plenty of fluids to prevent dehydration. Assess the amount and frequency of alcohol use.
- ✓ Consider purchasing a personal monitoring device (i.e. Lifeline Medical Alert).
- ✓ Water testing – Ensure hot water thermostat is set at 120 degrees Fahrenheit.
- ✓ Test smoke detectors for functionality.

Appendix B

Fall Prevention Workgroup
Member List

Brock Beamer, MD, University of Maryland and Baltimore VA Medical Center

Lynn Beattie, MPT, MHA, PT, National Council on Aging

Debra Braun, RN, Baltimore County Health Department

Reba Cornman, MSW, University of Maryland Geriatrics and Gerontology Education and Research Program

Joyce Dantzler, MS, MCHES, Department of Health and Mental Hygiene

Jeanne DeCosmo, MBA, BSN, Maryland Hospital Association

Richard Edlow, OD, Katzen Eye Group

Linda Horn, DsCPT, MHS, PT, NCS, Maryland Physical Therapy Association

Danna Kauffman, JD, LifeSpan Network

Jade Leung, MS, Department of Health and Mental Hygiene

Carolyn Mason, RPh, Baltimore Washington Medical Center

Denise Matricciani, Maryland Hospital Association

Judy Simon, MS, RD, LDN, Department of Aging

Wendy Shields MPH, Johns Hopkins Center for Injury Research and Policy

Charles Smith, PhD, Aging and Disability Services, Howard County Health and Human Services

Patty Stehle, CAE, Health Facilities Association of Maryland

Michelle Stone, LCSW-C, Baltimore County Health Department

Erica Turner, MPH, CHES, Department of Health and Mental Hygiene

Elizabeth Weglein, Elizabeth Cooney Personnel Agency, Inc.

Appendix C

STATE OF MARYLAND

DHMH

Maryland Department of Health and Mental Hygiene

201 W. Preston Street • Baltimore, Maryland 21201

Martin O'Malley, Governor – Anthony G. Brown, Lt. Governor – Joshua M. Sharfstein, M.D., Secretary

July 23, 2012

Dear Colleague,

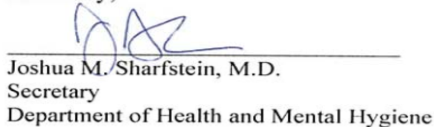
During the 2012 legislative session, House Bill 665, Health and State Government – Falls by Senior Citizens – Awareness and Prevention, was considered by the Health and Government Operations Committee of the Maryland General Assembly. The intent of this important piece of legislation was to reduce falls, fall-related deaths, and hospitalizations due to falls among senior citizens in Maryland. Although the legislation did not pass, the Committee, recognizing falls among the elderly as a major public health problem, requested that the Department of Aging and the Department of Health and Mental Hygiene develop a statewide protocol for home safety inspections for seniors discharged from the hospital following a fall-related admission.

We invite you to join with other select stakeholders in serving on a workgroup to develop the statewide protocol. The standardized protocol will be used to assess the home environment of senior citizens discharged from a hospital, nursing, or rehabilitation facility following a fall-related admission, when and if a home safety inspection is determined necessary. The protocol must be completed and submitted to the Health and Government Operations Committee by November 2012.

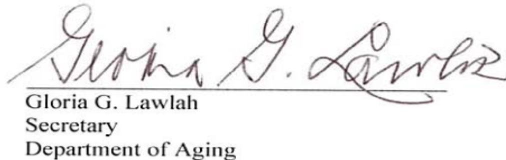
The first meeting of the workgroup is scheduled for Thursday, August 9, 2012 at 9:30 a.m. at the Maryland Hospital Association, 6820 Deerpath Road, Elkridge, Maryland. Other meetings will be scheduled as necessary on dates mutually acceptable to workgroup members.

We hope you will be able to serve on this important workgroup. Please notify Ms. Erica Turner, Injury Prevention Program Coordinator, Maryland Department of Health and Mental Hygiene, at (410) 767-6779 or eturner@dhmh.state.md.us as to your acceptance of this appointment.

Sincerely,



Joshua M. Sharfstein, M.D.
Secretary
Department of Health and Mental Hygiene



Gloria G. Lawlah
Secretary
Department of Aging

Toll Free 1-877-4MD-DHMH – TTY/Maryland Relay Service 1-800-735-2258
Web Site: www.dhmh.state.md.us

Toll Free 1-877-4MD-DHMH – TTY/Maryland Relay Service 1-800-735-2258
Web Site: www.dhmh.state.md.us

Appendix D

Resources

Administration on Aging: www.aoa.gov

Aging Network Services: www.agingnets.com

American Academy of Family Physicians: www.aafp.org

American Association of Retired Persons: www.aarp.org

Andrus Gerontology Center: www.usc.edu/dept/gero

Centers for Disease Control and Prevention:
Falls Older Adults: http://www.cdc.gov/HomeandRecreationalSafety/Falls/index.html
Fall Risks for Older Adults: http://www.cdc.gov/features/fallrisks/

Elderweb: www.elderweb.com

Fall Prevention Center of Excellence: http://www.stopfalls.org/service_providers/sp_bm.shtml

Home Modification Resource Center: www.homemods.org

Maryland Access Point: http://www.marylandaccesspoint.info/

Mayo Clinic: www.mayoclinic.com

National Council on Aging: www.ncoa.org

National Institute on Aging: www.nih.gov/nia

National Safety Council: www.nsc.org

Maryland State Health Improvement Process (SHIP):
http://dhmh.maryland.gov/ship/PDFs/obj%2014%20fall%20related%20deaths.pdf

U.S. Consumer Product Safety Commission: www.cpsc.gov

Fall prevention: 6 Tips to prevent falls---Falls put you at risk of serious injury. Prevent falls with these simple fall-prevention measures, from reviewing your medications to hazard-proofing your home.
http://www.mayoclinic.com/health/fall-prevention/HQ00657

Michael, YL, Whitlock, EP, Lin, JS, Rongwei, F, O'Connor, EA, Gold, R. Primary care – Relevant interventions to prevent falling in older adults: A systematic evidence review for the U.S. Preventive Services Task Force. (2010) Annals of Internal Medicine, 153(12); 815-24.

Nonfatal Bathroom Injuries Among Persons Aged ≥15 Years-United States, 2008. June 10, 2011; 60(22):729-733 Morbidity and Mortality Weekly Report.