JAGS ABSTRACTS
FROM THE JOURNAL OF THE AMERICAN GERIATRICS SOCIETY

Improving Physical Function and Blood Pressure in Older Adults Through Cobblestone Mat Walking: A Randomized Trial

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■ **Objectives:** To determine the relative effects of cobblestone mat walking, in comparison with regular walking, on physical function and blood pressure in older adults.

■ **Design:** Randomized trial with allocation to cobblestone mat walking or conventional walking.

■ **Setting:** General community in Eugene, Oregon.

■ **Participants:** One hundred eight physically inactive community-dwelling adults aged 60 to 92 (mean age±standard deviation=77.5±5.0) free of neurological and mobility-limiting orthopedic conditions.

■ **Intervention:** Participants were randomized to a cobblestone mat walking condition (n=54) or regular walking comparison condition (n=54) and participated in 60-minute group exercise sessions three times per week for 16 consecutive weeks.

■ **Measurements:** Primary endpoint measures were balance (functional reach, static standing), physical performance (chair stands, 50-foot walk, Up and Go), and blood pressure (systolic, diastolic). Secondary endpoint measures were Short Form-12 physical and mental health scores and perceptions of health-related benefits from exercise.

■ **Results:** At the 16-week posttest, differences between the two exercise groups were found for balance measures (P=.01), chair stands (P<.001), 50-foot walk (P=.01), and blood pressure (P=.01) but not for the Up and Go test (P=.14). Although significant within-group changes were observed in both groups for the secondary outcome measures, there were no differences between intervention groups.

■ **Conclusion:** Cobblestone mat walking improved physical function and reduced blood pressure to a greater extent than conventional walking in older adults. Additional benefits of this walking program included improved health-related quality of life. This new physical activity may provide a therapeutic and health-enhancing exercise alternative for older adults. ***J Am Geriatr Soc* 2005;53(8): 1305-1312.**

The Life Cycle of Bruises in Older Adults

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■ **Objectives:** To summarize the occurrence, progression, and resolution of accidentally acquired bruises in a sample of adults aged 65 and older. The systematic documentation of accidentally occurring bruises in older adults could provide a foundation for comparison when considering suspicious bruising in older adults.

■ **Design:** Between April 2002 and August 2003, a convenience sample of 101 seniors was examined daily at home (up to 6 weeks) to document the occurrence, progression, and resolution of accidental bruises that occurred during the observation period.

■ **Setting:** Three community-based settings and two skilled nursing facilities in Orange County, California.

■ **Participants:** One hundred one adults aged 65 and older (mean age=83).

■ **Measurements:** Age, sex, ethnicity, functional status, handedness, medical conditions, medications, cognitive status, depression, history of falls, bruise size, bruise location, initial bruise color, color change over time.

■ **Results:** Nearly 90% of the bruises were on the extremities. There were no bruises on the neck, ears, genitalia, buttocks, or soles of the feet. Subjects were more likely to know the cause of the bruise if the bruise was on the trunk. Contrary to the common perception that yellow coloration indicates an older bruise, 16 bruises were predominately yellow within the first 24 hours after onset. People on medications known to affect coagulation pathways and those with compromised function were more likely to have multiple bruises.

■ **Conclusion:** Accidental bruises occur in a predictable location pattern in older adults. One cannot reliably predict the age of a bruise by its color. ***J Am Geriatr Soc* 2005;53(8):1339-1343.**

The Cost Effect of Newer Medication Adoption in an Older Medicaid Cohort

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■ **Objectives:** State Medicaid programs struggle with rapidly increasing expenditures for pharmaceuticals, and Medicare will likely face the same challenge. This article demonstrates how the adoption of newer drugs across diverse therapeutic classes contributed to one state's Medicaid expenditures over a 3-year period.

■ **Design:** Retrospective analysis of administrative claims data.

■ **Setting:** Older Kansas Medicaid community dwellers and institutionalized beneficiaries.

■ **Participants:** A 15% random sample (N = 6,256) of recipients aged 60 and older.

■ **Measurements:** Prescription medication use was tracked for three sequential 1-year periods for eight therapeutic classes accounting for the greatest Medicaid drug expenditures, categorizing individual medications as newer or older agents based on generic availability and other clinical distinctions. Outcome measures were utilization per person-year, price per prescription, market share as percentage of prescriptions, and market share as percentage of expenditures for prescriptions within each class.

■ **Results:** Use increased for all classes, driven by the adoption of newer agents. Mean prescription prices rose in nearly all classes primarily because of the higher prices of the newer agents. Newer drugs accounted for more than 50% of prescriptions in four of eight classes and constituted a disproportionately greater share of expenditures than their prescription share among several classes: antidepressants (>95%), antipsychotics (>92%), antiulcer agents (>63%), antiinflammatory drugs (>60%), and opiates (>45%).

■ **Conclusion:** Newer drug products for a variety of treatment indications consume a majority of pharmaceutical expenditures through widespread adoption and higher prices. Although these agents may offer some therapeutic advantages, further research is needed to determine in what circumstances, and for which patients, the advantages of new pharmaceuticals outweigh their higher costs. ***J Am Geriatr Soc* 2005;53(8):1366-1373.**

A Pilot Study of Usefulness of Clinician–Patient Videoconferencing for Making Routine Medical Decisions in the Nursing Home

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■ **Objectives:** To pilot and assess the role of videoconferencing in clinicians' medical decision-making and their interactions with nursing home residents (NHRs).

■ **Design:** Paired virtual and bedside examinations. Face-to-face (FTF) examination of NHRs by off-site clinicians immediately followed videoconferencing between the same clinician–NHR pair.

■ **Setting:** A 240-bed, county-managed, urban nursing home.

■ **Participants:** NHRs (n=35) and clinicians (n=3) receiving or providing routine care between 2002 and 2003.

■ **Measurements:** Orders generated by clinicians, clinicians' ratings of videoconferencing, and coded review of video encounters. After both examinations, clinicians rated the encounters and generated orders necessary for NHRs. Orders were categorized and counted according to timing (before or after the FTF visit). Clinician–NHR interactions were assessed using coding videos with a 31-item instrument.

■ **Results:** For 71% of the encounters, clinicians stated that videoconferencing facilitated their assessment. Difficulties included sound quality (19%) and participants' familiarity with videoconferencing (7%). Although NHRs were alert in 50% of encounters, 62% of alert NHRs did not indicate understanding of the recommended treatment.

■ **Conclusion:** FTF examination was superior for most assessments, but videoconferencing was judged to be valuable, especially for wound care. Even when NHRs were alert, informed medical decision-making by NHRs with their clinicians was limited. Enhancing videoconferencing quality and providing more training about informed decision-making using videoconferencing might improve the effectiveness of the technology. ***J Am Geriatr Soc* 2005; 53(8):1380-1385.**

Decisions to Hospitalize Nursing Home Residents Dying with Advanced Dementia

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■ **Objectives:** To describe the prevalence of, timing of, and factors associated with decisions not to hospitalize nursing home residents with advanced dementia who were dying.

■ **Design:** Retrospective cohort study.

■ **Setting:** Six hundred seventy five–bed nursing facility in Boston.

■ **Participants:** Two hundred forty residents in a teaching nursing home who died between January 2001 and December 2003 with advanced dementia.

■ **Measurements:** The prevalence and timing of do-not-hospitalize (DNH) orders were determined from the medical record. Data describing demographic characteristics, health conditions, advance care planning, sentinel events, and health services usage during the last 6 months of life were examined. Factors associated with having a DNH order were identified.

■ **Results:** At the time of death, 83.8% of subjects had a DNH order. The prevalence of DNH orders was 50.0% and 34.4%, 30 and 180 days before death, respectively. Hospital transfers were common during the last 6 months of life (24.6%). Factors independently associated with having a DNH order before death included surrogate decision-maker was not the subject's child (adjusted odds ratio [AOR]=4.39, 95% confidence interval [CI]=1.52–12.66), eating problems (AOR=4.17, 95% CI=1.52–11.47), aged 92 and older (AOR=2.78, 95% CI=1.29–5.96), and length of stay 2 years or longer (AOR=2.34, 95% CI=1.11–4.93).

■ **Conclusion:** For most institutionalized persons with advanced dementia, a decision to forgo hospitalization is not made until death is imminent. Thus, hospital transfers are common near the end of life. The finding that DNH orders are associated with patient and surrogate factors can help clinicians identify cases in which decisions to forgo hospitalizations may be facilitated. ***J Am Geriatr Soc* 2005;53(8):1396-1401.**