Pharmacists and Medicare’s Annual Wellness Visit: implications for pharmacy education and interprofessional primary care

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Pharmacists; Pharmaceutical Services; Preventive Health Services; Medicare; Multimorbidity; Polypharmacy; Frailty; Aged; Primary Health Care; Patient Care Team; United States

Introduction
Older adults largely receive medical services in ambulatory primary care venues. Unfortunately, there is often a mismatch between the structure of primary care and senior patients’ needs, including multimorbidity, frailty, cognitive impairment, and polypharmacy. These attributes do not lend themselves to the typical, short primary care visit wherein multiple concerns are addressed in a “tyranny of the urgent.” Instead, interventions emphasizing patient-centered care, wellness, prevention, and care coordination are necessary. Medicare’s Annual Wellness Visit (AWV) provides a means to deliver such care.

The AWV, an hour-long encounter, addresses multiple concerns in a coordinated fashion, including preventive care for beneficiaries over age 65. In a national sample of Medicare recipients, AWV completers were more likely to receive subsequent preventative services versus non-completers. Odds were uniformly increased for mammography, bone density, depression and colon cancer screening, and alcohol misuse. Increased screening for sexually transmitted illnesses and cognitive impairment were also associated with completion. Additionally, completers were over twice as likely to receive a PCV-13 vaccination and 20% more likely to receive an influenza immunization.

The AWV allows for an interprofessional approach wherein varied clinicians, including pharmacists, can lend their expertise by conducting the AWV under direct supervision from a physician. This “incident-to” billing model allows non-physician providers to bill for services as if they were conducted by the physician.

The AWV remains vastly underutilized, especially among high risk groups. Physician advocacy for its completion may be limited by complexity and competing agendas. With their training and scope of practice, pharmacists may serve as care extenders and enhance completion rates. It is incumbent that pharmacists have good understanding of the AWV. Accordingly, this commentary aims to:

1. Illustrate a pharmacist-led AWV service;
2. Review the impact of pharmacist-led AWVs;
3. Characterize pharmacist workforce preparedness to conduct AWVs.

Pharmacist-led AWV Model
The required elements of AWV are publicly available, well described, and outlined in Table 1. Required AWV components include an updated history, coordination of care, medication reconciliation, identification of preventative service needs, optional advance care planning, as well as functional assessment and screening for geriatric syndromes, including falls, depression, cognitive impairment, vision and hearing. Physical assessment is limited to weight and vital signs. Patients also complete a health risk appraisal which further delineates behavioral and psychosocial risks (Table 2). The end product is a personalized, written plan of care summarizing preventative interventions, follow-up visits, and referrals for education, counselling, or specialty consultation. The case study in Table 3 illustrates the integration of these elements into a pharmacist-led AWV.

Pharmacist impact of conducting AWVs
It is widely recognized that pharmacists have the skills and experience to conduct and manage the medication-centric components of an AWV, including medication reconciliation, review for appropriateness, adherence, and alignment with patient goals. Studies show that medication histories conducted by pharmacists are more robust and accurate versus those conducted by other professionals. Indeed, pharmacists conducting AWVs are more likely to identify and intervene on medication-related concerns. Moreover, pharmacists are also highly trained in the conduct of patient evaluation, communication, and health promotion. Several studies illustrate the benefits of AWV completion by pharmacists. With an average of 3.5 to 5.4 interventions per patient, pharmacists have effectively facilitated completion of preventative services, including
immunizations, mammography, diabetes, and lipid screening.\textsuperscript{14-16} Not surprisingly, pharmacists are more likely to identify and implement medication management interventions versus other clinicians conducting AWVs.\textsuperscript{11,12,14} In an evaluation of pharmacist-led AWVs followed by comprehensive medication management, 278 medication-related problems were identified in 48 of 53 participants.\textsuperscript{17} Of these, 247 (88.8%) were rectified during the AWV or subsequent follow-up. Neither hospitalization nor emergency room usage changed following the intervention. However, this study used a pre-post comparison design and thus could not account for effects of disease progression on usage rates.\textsuperscript{13} In addition to medication-related interventions, pharmacists delivering AWVs has resulted in a comparable rate of interventions recommended or underway followed by comprehensive medication management that significantly improved patients’ functional impairment.\textsuperscript{19,20} Immunization rates increased significantly compared to physicians, including errors in insulin administration and a new prescription for an over-the-counter sleep aid. Of note, JD is a person with diabetes being treated with insulin with a recent emergency department visit for hypoglycemia.

The pharmacist then conducts a medication reconciliation and finds several discrepancies, including errors in insulin administration and a new prescription for an over-the-counter sleep aid.

JD's HRA is reviewed and is notable for low intake of healthy food and unsteady balance. A review of preventative needs indicates need for pneumonia and influenza vaccines as well as bone density screening. Cancer screening is up to date.

Geriatric screening includes a two-question depression screen which is negative. JD appears well-groomed, answers questions appropriately, and has no evidence of functional impairment; as a result, the pharmacist does not conduct further cognitive screening. As JD reported trouble with balance, the pharmacist conducted a timed up & go test, which indicates a risk for falling.

The pharmacist provides a written screening schedule and a summary of JD’s health risks, current interventions and recommendations specifically addressing adherence, risk of falls and hypoglycemia, immunization history, and need for bone density testing. These are ordered, immunizations administered, and a referral for physical therapy placed. JD agrees to stop her over-the-counter sleep aid to reduce fall risk. Health education materials for sleep hygiene and healthy eating are provided. The pharmacist clarifies the proper use of JD’s mealtime insulin and recommends follow-up with the pharmacy clinic. JD is provided information and resources around advance care planning.

The pharmacist documents the components of the AWV within the electronic health record and discusses findings with the primary care physician who reinforces the wellness plan and factors the findings into her management of other chronic conditions.

At 3-month follow up, JD brings in an advance directive. Her bone density revealed osteoporosis and she is started on weekly alendronate. She has had no further falls or hypoglycemic episodes.

There are opportunities for pharmacists to enhance AWV outcomes research. Despite the aforementioned observations, evidence that AWVs improve clinical and economic outcomes remains elusive.\textsuperscript{18,19} There are several potential explanations inherent to practice-based research, including lack of randomization and control groups. Unique to the AWV, differences in health, access to care, and valuation of care of completers versus non-completers, and failure to link the AWV to follow-up management that might reduce care disparities and utilization, are limitations.\textsuperscript{15,20} Given the salience of medication use to these outcomes, further studies of pharmacist-led AWV on these outcomes are warranted.\textsuperscript{12}

Pharmacist-led AWVs are well-received by other providers. Physicians in a family medicine practice strongly agreed that their patients benefited from a pharmacist-led AWV and strongly disagreed that they would prefer conducting the visit themselves.\textsuperscript{22} Patients who received pharmacist-
led AWV have reported high rates of satisfaction, noting that they were just as comfortable with that visit as they would have been with their physician, and strongly agreed that they would like to see the same pharmacist provider next year.\textsuperscript{19,23} For practices struggling to recruit patients for AWV completion, pharmacist-led visits can be a recruiting strategy, particularly if patients express questions and concerns about their medications.

At a reimbursement rate of USD 175 (initial visit) and USD 118 (subsequent visits), conduct of the AWV also represents a source of revenue for practices that can underwrite the pharmacist salary. For example, AWV net revenues exceeded USD 50,000 even after accounting for overhead and not accounting for secondary revenue from immunizations, laboratory draws, and other related, billable services to the AWV.\textsuperscript{25} Additionally, the AWV allows other opportunities for remuneration, including depression screening, alcohol misuse screening, and advance care planning.\textsuperscript{26} Completion of 1,070 visits annually would offset the salary for a full-time pharmacist. Assuming 2,632 available visits per year, this income may facilitate pharmacist-led, non-reimbursable activities in the remaining 60% of visits.\textsuperscript{27} The AWV can deliver further return on investment by offering a structure for completing and documenting quality measures that enhance performance under value-based reimbursement programs. When used by Accountable Care Organizations, AWV completion is associated with a 5.7% reduction in costs.\textsuperscript{23}

### Pharmacist Workforce Preparedness to Conduct AWVs

As opportunities for pharmacists to participate in health promotion initiatives such as the AWV expand, the profession should work to ensure preparedness. Current accreditation standards for schools of pharmacy require programs to provide learners with skills well aligned to those necessary to conduct AWVs. The standards require programs to focus on health promotion activities to manage chronic disease and promote wellness, to work in interprofessional teams, advocate for patient interests and provide patient-focused care.\textsuperscript{13} Required curricular elements to meet these standards, such as patient evaluation via objective and subjective means and exploration and implementation of activities that advance public health, ensure that graduates are able to conduct the key elements required of an AWV. Pharmacy accreditation standards have increasingly focused on public health and chronic conditions, as evidenced by the emphasis on immunization delivery and certification with the Standards 2016.\textsuperscript{13} Geriatric screening and assessment for falls reduction, home safety, advanced care planning, depression, sensory impairment, and cognition are less appreciated in many curricula.\textsuperscript{20,29} Schools aiming to meet accreditation-required elements for patient assessment should look to explicitly address these issues to enhance AWV preparedness. Such efforts should include opportunity to practice these elements in a coordinated fashion that accurately simulates pharmacist-led conduct of the AWV.

Concurrently, practice management, innovation, and entrepreneurship content should provide learners with the knowledge and skills to systematically advocate for participation and demonstrate success, when implementing a service such as the AWV. This includes ensuring that pharmacists can facilitate collaborative practice relationships with physicians. With the need to demonstrate and share both clinical and economic outcomes related to the AWV, academic institutions, training programs, and continuing professional development providers should supply opportunities for learners to develop practice management, evaluation, and quality improvement skills. The development of further resources, such as the National Alliance of State Pharmacy Association’s “Pharmacist’s Guide to Medicare Annual Wellness Visits” and the American Society of Health Systems Pharmacists “FAQ: Medicare Annual Wellness Visits” are also critical.\textsuperscript{30,31}

### Conclusion

It is clear that adding pharmacists to the team to conduct AWVs can favorably impact patients’ health by identifying medication-related problems, ensuring appropriate preventative screening, and promoting wellness. Fully realizing this value will require continued emphasis on interprofessional training for all disciplines. There is a need to ensure that pharmacist education embraces principles of geriatric assessment, clinical prevention, and advance care planning in order to fully prepare pharmacists to complete all AWV elements. Additionally, educators should ensure that pharmacists obtain the practice management skills necessary to develop models that support the AWV. Finally, there is both the challenge and opportunity for pharmacists to engage in outcomes research that demonstrates that the conduct of AWVs translates into improved quality, reduced costs, and enhanced patient-centered outcomes through systematic evaluation and dissemination.

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| Table 3. Health Risk Appraisal requirements\textsuperscript{1} | Specific Elements |
|--------------------------------------------------------------|-------------------|
| Demographic Data                                            | Age, gender, race, ethnicity |
| Self-Assessment                                              | Health Status, frailty, physical function, pain, fatigue |
| Psychosocial Risks                                           | Depression, stress, anger, loneliness, lack of social support, safety/concern for abuse-exploitation |
| Behavioral Risks                                             | Smoking, physical activity, nutritional/oral health, alcohol and illicit usage, sexual behavior, seat belt use, firearms, home safety |
| Basic Activities of Daily Living (ADLs)                      | Bathing, toileting, ambulating, transfers, eating, dressing |
| Instrumental Activities of Daily Living (IADLs)              | Shopping, meal preparation, telephone use, housekeeping, laundry, medication management, transportation, finances |
| Advanced Activities of Daily Living                          | Driving, computer literacy, health literacy |

\textsuperscript{1}Examples available at: American Academy of Family Physicians. Accessed August 1, 2019 at: https://www.aafp.org/journalpdfrestricted/fpm/2012/0300/fpm20120300p11-r1.pdf

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CONFICT OF INTEREST

None to declare.

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