AMERICAN ACADEMY OF FAMILY PHYSICIANS FOUNDATION

2016-2017 Senior Immunization Awards CASE STUDY

University of Wyoming Family Medicine Residency at Cheyenne

TEAMWORK AND CLINIC WORKFLOW CHANGES BOOST SENIOR VACCINATION RATES

Pam Oiler, LCSW, enjoys the bustle of clinic life as she goes about her work as social worker and faculty member at the University of Wyoming Family Medicine Residency Program (UWFMRP). These days, that buzz includes an element that Oiler finds especially gratifying: the sound of social workers, nursing staff, physicians and others engaging their senior patients in conversations about needed immunizations.

It hasn't always been that way. According to Medical Assistant (MA) Christy Novie, "We've always been proactive about checking the vaccination status of our kids, but we didn't think to apply it to adults." PGY-I Family Medicine resident Elisabeth Gehringer, DO, agreed. "We want to try to address as many of our patient's health concerns as we can in an office visit and this can be very challenging -- especially with the elderly who often have more complex health issues. The preventive aspect can get lost among the more pressing concerns." This began to change when Oiler learned of the 2016-2017 Senior Immunization Awards available through the American Academy of Family Physicians (AAFP) Foundation.

The award program aims to help FMRPs develop quality improvement plans to increase influenza and pneumonia immunization rates in seniors age 65 and older. Already a strong advocate for the effectiveness of vaccines in deterring serious illnesses, Oiler joined forces with PGY-II resident Kathlene Mondanaro, PhD, DO, to lead the project.

Serving Cheyenne's older adult population presented clear obstacles--many lack transportation, live on a limited income (usually Social Security), and, although a tough choice, might forego medical care because of their inability to afford Medicare co-payments and/or deductibles. Despite these and other barriers, Oiler and Dr. Mondanaro set an ambitious goal: to increase the number of senior patients vaccinated for influenza and pneumococcal disease (PPSV23 and PCV13) to 75% by the end of the 2016-2017 flu season (a total of 429 out of 572 seniors). The plan to achieve that goal included targeting patients with medical appointments at the UWFMRP clinic, along with seniors cared for by the residency program through home visits, nursing homes and assisted living facilities.

The effort to create buy-in and boost physician and staff competence in carrying out project activities would be clinic-wide, involving 18 resident physicians, two nurse practitioners, six attending faculty, two clinical pharmacists and their students, two social workers and their students, all 8-12 nursing staff (MAs and RNs), and rotating medical students. Oiler and Dr. Mondanaro conducted extensive training and education sessions. Topics included epidemiology of influenza and pneumococcal diseases; Advisory Committee on Immunization Practices (ACIP) vaccine recommendations and guidelines; and contraindications, precautions and risk factors. Following the training, Novie expressed greater understanding of the project and her role within it. "Dr. Mondanaro and Pam Oiler did a wonderful job of preparing us—it was very constructive." Dr. Gehringer concurred, "A comprehensive review of vaccination guidelines really helped prepare us to work more effectively with nursing staff, and the changes to workflow will ensure that we consistently identify patients who are eligible/could benefit from vaccinations—and that needed conversations about vaccinations are taking place."

Achieving the project goal would clearly require a more consistent approach to senior vaccinations, so

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Oiler and Mondanaro introduced several changes in clinic procedures including: 1) Regular screening of patients for immunization needs prior to appointments combined with use of pop-up notifications within the EHR to remind the provider; 2) Standing orders, giving nursing staff more autonomy in administering vaccines; 3) A Vaccine Questionnaire to be completed by each senior patient at check-in; and 4) "Senior Vaccination Record Cards" intended to assist in tracking vaccines administered by outside sources.

Social work staff mailed reminder postcards for the upcoming flu season and began making follow-up phone calls to those failing to respond. Nursing staff began reviewing medical records of senior patients scheduled to come in the next day, flagging those that needed a flu and/or pneumonia vaccination. With the patient's consent, and with standing orders in place, vaccine(s) were administered and recorded in the EHR during the visit. If the patient refused the vaccine or seemed hesitant, the nurses began alerting the physician about the need for a follow-up conversation. As an additional visual cue, "pink cards printed with the words, 'ADULT IMMUNIZATION' were taped to every exam room and at our desk as a reminder to check the medical record prior to the patient's arrival," said Novie.

According to Dr. Gehringer, the chart reviews and pop-up reminders have had a significant impact on reducing the numbers of senior patients who were falling through the cracks. "We now have a workflow for flagging geriatric patients that qualify for vaccines and we keep our radar turned on, just like we do with well-child checks."

Education efforts expanded to embrace a community focus. Several activities were launched to build awareness surrounding the importance of flu and pneumonia immunizations and to promote the fall Vaccination Clinic held on the University of Wyoming (UW) campus. Information posters advertising availability of senior vaccines at a discounted rate soon adorned the UWFMRP clinic walls and were displayed at area nursing homes, assisted living facilities, pharmacies, senior centers, grocery stores and the library. Press releases were sent to local news agencies and Oiler and her social work team also promoted the availability of vaccines to Cheyenne's seniors at monthly CASE meetings (Coalition for Agencies Serving the Elderly). They also led efforts to increase the UWFMRP's presence by participating in community events (YMCA Senior Health Expo; "Superday" annual festival hosted by the Cheyenne Parks and Recreation Department; and a Multicultural Health Fair). "These events were opportunities to educate the community on the importance of vaccinations later in life," said Oiler.

UW ECHO Geriatrics network provided another outlet for emphasizing the need for vaccines in older adults. UW ECHO in Geriatrics, sponsored by the Wyoming Center on Aging, is a model for lifelong medical learning and collaborative practice that links front-line healthcare providers with specialist care teams to manage patients who have chronic conditions requiring complex care. In a presentation and discussion held in May 2017, Oiler, PGY-I resident Dr. Jonathan Egbert and PGY-II resident Dr. Mondanaro highlighted the case of a specific older patient at high risk who unfortunately did contract hospital-acquired pneumonia. Oiler noted that the presenters used this case to stress that "primary care providers need to encourage and offer vaccinations at every opportunity to patients regardless of the reason why they are there." The ECHO webinar attracted the participation of 16 different organizations ranging from the Wyoming Department of Corrections, physicians in private practice and nursing homes, to medical schools and the Wyoming Center on Aging.

The project team also targeted homebound patients served by UWFMRP, including some in assisted living facilities. Armed with a supply of vaccines and with support from nursing staff and residents, Oiler could immunize all homebound patients aged 65 and older. The visits turned up other gaps as well. "I was surprised that all patients in the assisted living communities were not being vaccinated," Oiler noted. "So we reached out to these facilities and also got them vaccinated."

One can expect to encounter a few bumps along the road to success, and this endeavor was no exception. Efforts to retrieve senior immunization

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data from the EHR revealed discrepancies between documented immunizations and those that registered within the EHR query. Therefore, it became clear that a manual review of individual patient charts would be necessary to ensure accuracy and, "It was a major undertaking," admits Oiler. The painstaking task of manual chart review fell on the dutiful shoulders of the social work team.

The manual audits revealed inconsistent document practices as a part of the problem. "It's critical that vaccination information be properly charted. Immunizations recorded in free text, for example, won't be picked up when we run our reports," said Oiler. But when the chart review turned up other issues as well, Oiler turned to the clinic's EHR/IT specialist for help in clarifying why some data were retrieved and some were not. System updates from the EHR servicer are expected to eliminate whatever "bugs" are plaguing the system. That, along with refresher training for providers in proper documentation procedures, should go a long way towards eliminating the prospect of a recurrence.

Other adjustments were also made. The Vaccine Questionnaire was deemed redundant and the Senior Vaccination Record Cards proved unproductive. Instead, nursing staff began the regular practice of making confirmation phone calls to outside pharmacies/providers for those patients who reported receiving a vaccine elsewhere. But perhaps the biggest obstacle came in the form of unexpectedly strong patient resistance to both the flu and pneumonia vaccines. "We were surprised—118 of our patients (about 22 percent of eligible seniors) declined at least one immunization," lamented Oiler. And although Novie is clear-eyed in sizing up her patients ("Many are not really compliant with anything"), she admits to being caught off guard at how often she was rebuffed, and the reasons given. "For example, some patients were absolutely convinced that simply because they hadn't had pneumonia or flu in the past, that meant they weren't really at risk—that they didn't need it. I just couldn't really understand their reasoning."

Dr. Gehringer experienced significant patient resistance as well. "Medicine is not paternalistic anymore—but it can still be frustrating when patients continue to refuse needed treatment. Fear/misinformation about vaccines is a very unfortunate general trend in society right now, and I wish there was a magic solution."

In retrospect, Oiler would place more emphasis on coaching residents and nursing staff on techniques for overcoming patient resistance. "I honestly thought vaccines were like eating or drinking -- something everyone would want." She vows that a strong communication component will be included in resident/staff education sessions in future years.

Despite (or perhaps because of) these challenges, the entire clinic staff's embrace of the project far exceeded the expectations of either Dr. Mondanaro or Oiler. From the launch of the project to its conclusion, "immunizations were a daily discussion, either between nursing staff and patients, residents/providers and patients, or social work staff and others," said Oiler. "And while we fell short of our goal of immunizing 75% of our seniors, we did increase our immunization rate up to 500-fold." Vaccination rates for patients aged 65 and older increased from 30% to 58.1% for influenza, from 2% to 10.6% for the PPSV23 pneumococcal vaccine and from 14% to 34.8% for the PCV pneumococcal vaccine. "It really takes a multidisciplinary team to deliver services that touch all areas of our patients' lives," Oiler concluded.

For her part, Dr. Gehringer feels that her participation in the senior immunization project enhanced her training in an important and unexpected way. "In residency, it can be difficult to step back enough to see that the community as a whole is an important focus for education and prevention—it easily gets lost in the rush from patient to patient. This project has helped find a way to foster the community outreach aspect of our work in addition to individual patient care."

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