User story for immunizations

Joe, a 30 year old male, works as a full-time cashier at a large and busy grocery store. In October, he went to the doctor for ankle pain. While his current symptoms were recorded and his medical history reviewed in the EHR, a pop-up reminder noted that Joe had not yet received his influenza vaccine for the upcoming flu season. The pop-up reminder also provided information from the Advisory Committee on Immunization Practices (ACIP) recommending that everyone over the age of 6 months receive an annual influenza immunization. Joe had not thought flu vaccination was necessary because he was young and not at high risk for complications of flu. However, his doctor, after noting Joe’s job, explained that his job increased his risk for flu because he worked with the public, and as a result, Joe agreed to be vaccinated.

Rebecca, a 45 year old female, scheduled an appointment with her new PCP. On her new patient intake form she filled in her current job: designing and building landscapes. During her appointment, her physician reviewed her immunization records and noted that Rebecca received her last tetanus vaccine about 12 years ago, and said that it was particularly important to keep her tetanus vaccine current because of her line of work. (Rebecca works with sharp tools that put her at high risk for puncture or open wound injuries; soil can contain spores of tetanus bacteria). CDC recommends adults receive a tetanus booster every 10 years. The doctor, recommended Tdap, containing both tetanus and pertussis vaccines, given the resurgence in pertussis and because Rebecca had not previously received the Tdap.

Phillip, age 25 year old male, works as a teaching aide at a child care service caring for children aged 6 months to 10 years. In this position, he may be exposed to many vaccine preventable childhood illnesses, including mumps, measles, rubella, chickenpox, pertussis, and diphtheria. While severe outbreaks of many of these conditions are rare in the US, they still occur. Upon learning his profession, Phillip’s doctor reviewed his immunization history in the EHR, used the EHR to pull up and review CDC immunization recommendations, and noted that Phillip had received the Td vaccine 5 years ago. Given the resurgence in pertussis, the doctor recommended the Tdap. Because Phillip works with children, CDC also recommends varicella and MMR (mumps, measles and rubella) immunizations for adults aged ≥19 years without evidence of immunity. Because there was no record of vaccination in the EHR, titers were measured both for MMR and varicella.

Hilery is a nurse practitioner in a hospital clinic and moonlights as a hospice nurse. Because of his potential contact with patients or infective material placing him at risk for exposure to vaccine preventable diseases, Hilery asked his personal physician to review his vaccination history recorded in the EHR. The EHR pulls up the CDC and the Advisory Committee on Immunization Practices (ACIP) recommendations for immunization of healthcare workers. They recommend that healthcare workers should be vaccinated for the following conditions: Hepatitis B (particularly if there is no documented evidence of a completed Hepatitis B series or serologic evidence of immunity); influenza (annually); MMR – if born 1957 or later; varicella – if no titer or history of the condition; Tdap; and pneumococcal immunizations if aged >65 years. The EHR also provides immunization requirements for the state in which Hilery practices.

Angela, a 32 year old female, recently started her position as a veterinary technician for the state forest service. She lives in a rabies enzootic area (i.e., rabies occurs in the wildlife population in her region.) In discussions with her physician about recommended immunizations for her new position, her physician uses the EHR to pull up CDC and Advisory Committee on Immunization Practices (ACIP) recommendations and notes that because Angela is in a high-risk job, CDC recommends pre-exposure rabies vaccination. These same recommendations also indicate the need for serum testing for rabies antibody every 2 years, and provide guidance on interpretation and follow-up of results. In addition, her physician notes that she is due for a Tdap booster. Given her occupational exposure to soil, which may contain tetanus bacilli spores, and risk for puncture or open wound injuries, her risk for tetanus is higher than that of most occupations.