

PAVE Adult Vaccination Performance Improvement Guide

Adult Immunization LSA Answer Key

Example

Competency: Systematically screen all patients for tobacco use

Question: A 45-year-old patient comes to see you for her annual check-up. She has been your patient for 20 years. Your chart notes indicate that she has been smoking cigarettes since she was 22 years old. She has tried to quit smoking once or twice in her 30s but was only successful for short periods of time. How likely are you to ask her if she is currently smoking cigarettes during this visit?

Not very likely 1 2 3 4 5 Very likely

Answer: Implementing clinic systems designed to increase the assessment and documentation of tobacco use status markedly increases the rate at which clinicians intervene with their patients who smoke.

Reference: Treating Tobacco Use and Dependence Clinical Practice Guideline 2008 Update, pg. 78.



UTILIZE ALL CLINICAL ENCOUNTERS AS OPPORTUNITIES TO ASSESS A PATIENT'S IMMUNIZATION STATUS.

Competency: Identify an individual patient's immunization status

1. **An established 30-year-old patient is seen on an office visit for a UTI. Aside from assessing the patient's UTI, how likely are you to review this patient's immunization status on this visit?**

Not very likely 1 2 3 4 5 Very likely

Answer: Assessing a patient's immunization status on every visit is an important component in providing quality healthcare. Keeping immunizations up-to-date is a lifelong, life-protecting process.

References: <http://www.immunize.org/catg.d/p4030.pdf>
<http://www.immunize.org/catg.d/p2023.pdf>
http://www2a.cdc.gov/vaccines/ed/whatworks/strategies_start.asp

Competency: Maintain up-to-date records on immunizations

2. **How likely is it that the medical record would provide quick accessibility to this patient's immunization records?**

Not very likely 1 2 3 4 5 Very likely

Answer: Very Likely. Quick accessibility ensures easy access to a patient's immunization status on every visit.

References: Screening Questionnaire for Adult Immunization for Office staff. <http://www.immunize.org/catg.d/p4065.pdf>
Strategies to Increase Adult Immunization Rates. <http://www2a.cdc.gov/vaccines/ed/whatworks/strategies.asp>

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Adult Immunization LSA Answer Key (cont.)



ADMINISTER AT EACH CLINICAL ENCOUNTER ALL IMMUNIZATIONS THAT ARE DUE OR OVERDUE UNLESS TRUE CONTRAINDICATIONS EXIST.

Competency: Identify which vaccines are indicated for each patient seen

3. Can you determine the comprehensive vaccination status of a specific patient in your practice panel?

Yes No

Answer: It is important to become familiar with the capabilities of your medical record system for tracking vaccination status. The use of flowsheets and manual record review (for example as part of a chart prep for an upcoming appointment) can be helpful in some practice settings, whereas other practices might benefit from maximizing the utility of an existing electronic health record for vaccine tracking. The CDC has a software program that was developed to assess adult immunization rates, and can be found at <http://www.cdc.gov/vaccines/programs/cocasa/index.html>

References: <http://www.cdc.gov/vaccines/programs/cocasa/index.html>

Case examples for implementation in different types of practices:

http://www2a.cdc.gov/vaccines/ed/whatworks/strategies_start.asp

<http://www.cdc.gov/vaccines/recs/reminder-sys.htm>

4. Can you identify (or produce a list of) all vaccines that are indicated for any given patient in your practice panel?

Yes No

Answer: The ability to integrate reliable vaccination status data for an individual patient with up to date recommendations for vaccine administration are critical elements of a successful immunization strategy. In addition to local resources within your practice setting (for example public health alerts for influenza vaccination), the Advisory Committee on Immunization Practices (ACIP) offers multiple tools to assess the appropriate vaccines for patients of all age-groups and unique considerations such as pregnancy or immunocompromised state.

Reference: <http://www.cdc.gov/vaccines/schedules/index.html>

PATIENT CASES

Note: for all of these cases, assume the zoster vaccine would still be for age 60 and above, rather than 50 (as recently approved by the FDA).

References: <http://www.cdc.gov/vaccines/schedules/index.html>

<http://www.immunize.org/handouts/vaccine-recommendations.asp>

Use standing orders to increase adult vaccination rates: <http://www.immunize.org/standingorders>

Adapted from http://www2a.cdc.gov/vaccines/ed/whatworks/test_your_knowledge.asp

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Adult Immunization LSA Answer Key (cont.)

Julie is a 19-year-old first-year college student who will be living in a dormitory this fall. She presents to you in late August. In the state where she lives, colleges require that her vaccinations are up to date. You review her medical record and find that she had 5 doses of Tdap prior to age 5. Her medical history also includes chlamydia cervicitis that she contracted from her boyfriend last year. Although it is not noted in her medical history, she states that her mother told her she had chickenpox when she was 3 years old.



What vaccines, if any, should Julie receive? (Select all that apply.)

- | | |
|---|---|
| <input checked="" type="checkbox"/> Tdap | <input type="checkbox"/> Pneumococcal |
| <input checked="" type="checkbox"/> Influenza | <input type="checkbox"/> Zoster |
| <input type="checkbox"/> Hepatitis A | <input checked="" type="checkbox"/> Meningococcal |
| <input checked="" type="checkbox"/> Hepatitis B | <input type="checkbox"/> Varicella |
| <input checked="" type="checkbox"/> HPV | <input type="checkbox"/> None |

Answer: According to the Advisory Committee on Immunization Practices (ACIP) recommendations, the following vaccinations are indicated for Julie.

Vaccine	Schedule	Rationale
Tetanus, Diphtheria, Pertussis (Tdap)	Single booster dose. Later booster doses with Td, every 10 years.	Adults, 19-64 years of age, should receive a single dose of Tdap to replace a single dose of Td for booster immunization against tetanus, diphtheria, and pertussis if it has been 10 or more years since they received their last dose of tetanus toxoid-containing vaccine (eg, Td). Tdap may be given at an interval as short as 2 years since the last Td dose if protection against pertussis is needed. Shorter intervals may be used.
Seasonal Influenza	1 dose, annually, in the fall.	All adults should receive a seasonal influenza vaccine each year in the fall.
Hepatitis B	3-dose series. Timing options: 0, 1, 6 months; 0, 2, 4 months; 0, 1, 4 months.	Recommended for persons who have recently acquired a sexually transmitted disease.
Human Papillomavirus (HPV)	3 doses given over 6 months.	The HPV vaccine is recommended for females 13-26 years of age who previously have not received the vaccine. The HPV vaccine protects against human papillomavirus infections that could lead to cervical cancer.
Meningococcal	1 dose.	First-year college students who live in dormitories are at higher risk of meningococcal disease than other college students, and should be vaccinated with 1 dose of meningococcal vaccine.

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Adult Immunization LSA Answer Key (cont.)

Janine is a 40-year-old heterosexual social worker who comes to your office in November for a check-up. She is beginning a new job at a medical clinic that cares primarily for HIV-infected patients. She does not expect to be exposed to blood or body fluids, but she will be working closely with patients. Her medical record shows that she received her most recent Td booster 5 years ago. She reports that she has never had chickenpox. She has no current medical problems.



What vaccines, if any, should Janine receive? (Select all that apply.)

- | | |
|---|---|
| <input checked="" type="checkbox"/> Tdap | <input type="checkbox"/> Pneumococcal |
| <input checked="" type="checkbox"/> Influenza | <input type="checkbox"/> Zoster |
| <input type="checkbox"/> Hepatitis A | <input type="checkbox"/> Meningococcal |
| <input checked="" type="checkbox"/> Hepatitis B | <input checked="" type="checkbox"/> Varicella |
| <input type="checkbox"/> HPV | <input type="checkbox"/> None |

Answer: According to ACIP recommendations, the following vaccinations are indicated for Janine.

Vaccine	Schedule	Rationale
Tetanus, Diphtheria, Pertussis (Tdap)	Single booster dose Later booster doses with Td, every 10 years.	Healthcare personnel who work in hospitals or ambulatory care settings and have direct patient contact should receive a single dose of Tdap as soon as feasible, if they have not previously received Tdap. The interval can be as short as 2 years from the last dose of Td. Shorter intervals may be used.
Seasonal Influenza	1 dose, annually, in the fall.	Seasonal Influenza vaccine should be offered to persons working with patients, such as immunodeficient persons, who are at risk for serious complications from influenza.
Hepatitis B	3-dose series. Timing options: 0, 1, 6 months; 0, 2, 4 months; 0, 1, 4 months.	Recommended for persons with occupational risk of exposure to blood or blood-contaminated body fluids. <i>Note: Although Janine will not routinely be exposed to blood or blood-contaminated body fluids, she runs the risk of being exposed through her close work with patients.</i>
Varicella	2 doses, 4-8 weeks apart.	Healthcare workers who lack evidence of immunity should receive the varicella vaccine. Evidence of immunity includes: documentation of vaccination, history of disease, laboratory evidence of immunity, laboratory confirmation of disease, or history of herpes zoster based on healthcare provider diagnosis.

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Adult Immunization LSA Answer Key (cont.)

Marguerite, a 58-year-old female, presents to your office in November complaining of urinary frequency. As you take a history from her, you learn that she smokes 1½ to 2 packs of cigarettes per day and reports a history of alcohol dependence. She remembers having received a shot 3 years ago during a visit to the emergency room when her “pancreas was acting up” but cannot remember what the shot was. She thinks she had chickenpox as a child. Her liver test results show ALT levels at 5 times the upper limit.



What vaccines, if any, should Marguerite receive? (Select all that apply.)

- | | |
|---|--|
| <input checked="" type="checkbox"/> Tdap | <input checked="" type="checkbox"/> Pneumococcal |
| <input checked="" type="checkbox"/> Influenza | <input type="checkbox"/> Zoster |
| <input checked="" type="checkbox"/> Hepatitis A | <input type="checkbox"/> Meningococcal |
| <input checked="" type="checkbox"/> Hepatitis B | <input type="checkbox"/> Varicella |
| <input type="checkbox"/> HPV | <input type="checkbox"/> None |

Answer: According to ACIP recommendations, the following vaccinations are indicated for Marguerite.

Vaccine	Schedule	Rationale
Tetanus, Diphtheria, Pertussis (Tdap)	Single booster dose. Later booster doses with Td, every 10 years.	Adults, 19-64 years of age should receive a single dose of Tdap to replace a single dose of Td for booster immunization against tetanus, diphtheria, and pertussis if it has been 10 or more years since they received their last dose of tetanus toxoid-containing vaccine (eg, Td). Tdap may be given at an interval as short as 2 years since the last Td dose if protection against pertussis is needed. Shorter intervals may be used.
Seasonal Influenza	1 dose, annually, in the fall.	Immunocompetent adults with chronic illnesses (eg, cardiovascular, pulmonary, kidney disease, diabetes mellitus, cirrhosis, asthma, or cerebrospinal fluid leaks) are at increased risk of influenza and its complications. All adults should receive a seasonal influenza vaccine each year in the fall.
Hepatitis A	2 doses, given at least 6 months apart.	Persons with chronic liver disease should receive hepatitis A vaccine.
Hepatitis B		Persons with chronic liver disease should receive hepatitis B. Consider checking patient serological tests for hepatitis B and hepatitis C first.
Pneumococcal	1 dose. Revaccination once is recommended for persons at highest risk provided 5 years have elapsed since receipt of the first dose.	Immunocompetent adults 64 years of age or younger with chronic illnesses (cardiovascular, pulmonary, or kidney disease, diabetes mellitus, alcoholism, cirrhosis, cerebrospinal fluid leaks, cochlear implants) or adults 19-64 years of age who have asthma or smoke cigarettes are at increased risk of pneumococcal disease and its complications and should receive a pneumococcal vaccine if they have not received PPSV in the past. If history is unknown, they should be vaccinated.

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Adult Immunization LSA Answer Key (cont.)

Michele is a 28-year-old HIV (+) lesbian presently in good health presenting to your office in November. She is employed at a computer software agency, but spends 10 or more hours per week volunteering at an AIDS hospice. According to her medical record, Michele received Td 6 years ago, 3 doses of hepatitis B vaccine 3 years ago, and had chickenpox as a child.



What vaccines, if any, should Michele receive? (Select all that apply.)

- | | |
|---|---|
| <input checked="" type="checkbox"/> Tdap | <input checked="" type="checkbox"/> Pneumococcal |
| <input checked="" type="checkbox"/> Influenza | <input type="checkbox"/> Zoster |
| <input checked="" type="checkbox"/> Hepatitis A | <input checked="" type="checkbox"/> Meningococcal |
| <input type="checkbox"/> Hepatitis B | <input type="checkbox"/> Varicella |
| <input type="checkbox"/> HPV | <input type="checkbox"/> None |

Answer: According to ACIP recommendations, the following vaccinations are indicated for Michele.

Vaccine	Schedule	Rationale
Tetanus, Diphtheria, Pertussis (Tdap)	Single booster dose Later booster doses with Td, every 10 years.	Health-care personnel who work in hospitals or ambulatory care settings and have direct patient contact should receive a single dose of Tdap as soon as feasible if they have not previously received Tdap. The interval can be as short as 2 years from the last dose of Td.
Seasonal Influenza	1 dose, annually, in the fall.	Recommended for all adults.
Hepatitis A	2 doses, given at least 6 months apart.	Recommended for patients with higher risk sexual encounters.
Pneumococcal	1 dose.	Adults with symptomatic or asymptomatic HIV disease should be vaccinated.
Meningococcal	1 dose.	Patients with human immunodeficiency virus (HIV) are likely at increased risk for meningococcal disease; therefore, HIV-infected patients may elect vaccination with the meningococcal conjugate vaccine (MCV4).

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Adult Immunization LSA Answer Key (cont.)

Hank is a 66-year-old male grandfather with history of cardiac arrest, arteriosclerosis, and congestive heart failure presenting to your office in October. His vaccination history shows that he received influenza vaccine last September (1 year ago) and Td 6 years ago. He believes he had chickenpox as a child.



What vaccines, if any, should Hank receive? (Select all that apply.)

- | | |
|---|--|
| <input checked="" type="checkbox"/> Tdap | <input checked="" type="checkbox"/> Pneumococcal |
| <input checked="" type="checkbox"/> Influenza | <input checked="" type="checkbox"/> Zoster |
| <input type="checkbox"/> Hepatitis A | <input type="checkbox"/> Meningococcal |
| <input type="checkbox"/> Hepatitis B | <input type="checkbox"/> Varicella |
| <input type="checkbox"/> HPV | <input type="checkbox"/> None |

Answer: According to ACIP recommendations, the following vaccinations are indicated for Hank. Recently the immunization advisory group to CDC recommended that Tdap can be given to ALL adults who have close contact with an infant, regardless of their age or the date of their last tetanus vaccine.

Vaccine	Schedule	Rationale
Tetanus, Diphtheria, Pertussis (Tdap)	Single booster dose Later booster doses with Td, every 10 years.	Healthcare personnel who work in hospitals or ambulatory care settings and have direct patient contact should receive a single dose of Tdap as soon as feasible if they have not previously received Tdap. The interval can be as short as 2 years from the last dose of Td.
Seasonal Influenza	1 dose, annually, in the fall.	Immunocompetent adults with chronic illnesses (eg, cardiovascular, pulmonary, or kidney disease, diabetes mellitus, cirrhosis, asthma, or cerebrospinal fluid leaks) are at increased risk of influenza and its complications. All adults should receive a seasonal influenza vaccine each year in the fall.
Pneumococcal	1 dose. Revaccination once is recommended for persons at highest risk provided 5 years have elapsed since receipt of the first dose.	Immunocompetent adults 64 years of age or younger with chronic illnesses (cardiovascular, pulmonary, or kidney disease, diabetes mellitus, alcoholism, cirrhosis, cerebrospinal fluid leaks, cochlear implants) or adults 19-64 years of age who have asthma or smoke cigarettes are at increased risk of pneumococcal disease and its complications and should receive a pneumococcal vaccine if they have not received PPSV in the past. If history is unknown, they should be vaccinated.
Zoster	1 dose.	Yes

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Adult Immunization LSA Answer Key (cont.)

Competency: Identify which vaccines are indicated for each patient seen (cont.)

Do you have a system to keep yourself up to date regarding changes in immunization best practices?

Yes No

Answer: The use of local resources (for example local public health department information regarding pertussis vaccine use during a regional outbreak) and more widely available national resources (eg, CDC and ACIP) including email alerts are ways to stay abreast of changes and provisional recommendations in the often rapidly changing environment of immunization best practices.

References: <http://www.immunize.org/subscribe/>
<http://www.cdc.gov/vaccines/recs/provisional/default.htm>

How effective do you think you are in keeping up to date regarding changes in immunization best practices?

Not very effective 1 2 3 4 5 Very effective

Answer: The use of local resources (for example local public health department information regarding pertussis vaccine use during a regional outbreak) and more widely available national resources (eg, CDC and ACIP) including email alerts are ways to stay abreast of changes and provisional recommendations in the often rapidly changing environment of immunization best practices.

References: <http://www.immunize.org/handouts/vaccine-recommendations.asp>
Ask adult patients if they are up-to-date on their immunizations. Here's a handout to help patients decide:
<http://www.immunize.org/catg.d/p4030.pdf>

Competency: Manage vaccines for special populations (Pregnancy, immunocompromised, allergies, etc)

Are you confident that you will make appropriate vaccine recommendations for patients that are:

(confidence 1=low, 5=high)

Pregnant	1	2	3	4	5
Feel ill	1	2	3	4	5
Believe they are up-to-date on vaccines but there is no verification	1	2	3	4	5
Immunocompromised	1	2	3	4	5

Answer: For safety and efficacy concerns it is important to have access up to date and reliable sources of vaccination recommendations for special patient populations. In some populations the need for a specific vaccine may be greater than that of the general population, or conversely, the risks of administering a specific vaccine may be prohibitive. Details can be found in the age-specific immunization schedules as well as discussions regarding specific diseases and conditions on the CDC Web site.

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Adult Immunization LSA Answer Key (cont.)

References: <http://www.cdc.gov/vaccines/spec-grps/default.htm>

Overall, the report provides evidence that vaccination coverage can be improved in high-risk populations when provider reminder systems are used alone or when several interventions are implemented concurrently. For complete information regarding the report, please see: Ndiaye S, Hopkins D, Shefer A, et. al. Interventions to improve influenza, pneumococcal polysaccharide, and hepatitis B vaccination coverage among high-risk adults, <http://www.cdc.gov/vaccines/adults/rec-vac/health-conditions/index.html>

Ask adult patients if they are up-to-date on their immunizations. Here's a handout to help patients decide: <http://www.immunize.org/catg.d/p4030.pdf>

General Recommendations on Immunization. Source:MMWR supplement February 1, 2013 / 62(01);9-19. http://www.cdc.gov/mmwr/preview/mmwrhtml/su6201a3.htm?s_cid=su6201a3_w



EDUCATE PATIENTS REGARDING THE IMPORTANCE OF IMMUNIZATIONS, THE RECOMMENDED SCHEDULE AND THE NEED TO MAINTAIN A PERSONAL RECORD OF IMMUNIZATIONS.

Competency: Communicate importance of specific vaccines

How important are the following vaccines in your practice?	(importance 1=low, 5=high)				
Pneumococcal	1	2	3	4	5
Influenza	1	2	3	4	5
Tetanus	1	2	3	4	5
Hepatitis	1	2	3	4	5
Varicella/Shingles	1	2	3	4	5
STD-related vaccines	1	2	3	4	5

Answer: Education of patients, parents, and other family members is a critical component of any successful immunization practice. The use of appropriate handouts, Web sites, and making an immunization review part of every patient encounter can contribute to the understanding of the importance of vaccines.

References: Ask adult patients if they are up-to-date on their immunizations. Here's a handout to help patients decide: <http://www.immunize.org/catg.d/p4030.pdf>
<http://www.immunize.org/catg.d/p4065.pdf>

How many adults in the United States die annually from vaccine-preventable diseases?

- 1,000 5,000 10,000 50,000

Answer: 50,000. In the United States, vaccination efforts have decreased deaths due to childhood vaccine-preventable diseases to less than 500 per year. In contrast, during an average year, nearly 50,000 adults die from diseases that are preventable through vaccination. Approximately 36,000 adults die from influenza, over 6,000 from invasive pneumococcal disease, and 5,000 from hepatitis B.

Reference: http://www2a.cdc.gov/vaccines/ed/whatworks/epi_facts_q01_a02.asp

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Adult Immunization LSA Answer Key (cont.)

What is the most important reason why patients get vaccinated?

- Insurance requirements Patient demand
 Physician recommendation Workplace protocols

Answer: Physician recommendation. The physician's recommendation is the most important reason why people get vaccinated. Even those patients with negative attitudes about vaccinations may be more likely to accept vaccination upon their physician's advice.

Reference: http://www2a.cdc.gov/vaccines/ed/whatworks/epi_facts_q05_a02.asp

Which of the following do you use to educate patients about the need for immunizations? (Select all that apply.)

- Counseling by a physician Counseling by a nurse
 Office questionnaire about general vaccination needs Patient vaccine information statements (VIS) before actual vaccination
 Other _____

Answer: A comprehensive approach to patient education is important, and should be tailored to your practice setting. Different members of the healthcare team can be utilized in addition to physicians and nurses (eg, pharmacists and medical assistants). The use of appropriate patient education handouts and Web sites are important complementary tools to face to face discussions with healthcare professionals.

Competency: Resolve patient concerns about adverse effects of vaccines.

Are you confident that you will make appropriate vaccine recommendations for patients that:
(Confidence 1=low, 5=high)

State an allergy to eggs	1	2	3	4	5
State an allergy or a concern about thimerosal	1	2	3	4	5
Fear getting ill from the vaccine	1	2	3	4	5

Answer: The risks associated with vaccine administration including safety, side-effects, and the role of the Vaccine Adverse Event Reporting System (VAERS) need to be fully understood by healthcare providers. Physicians and other healthcare providers should be able to discuss the benefits and risks of specific vaccines in order to fully inform patients, parents and other family members.

References: <http://www.immunize.org/vis/>
<http://www.immunize.org/catg.d/p3082.pdf>

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Adult Immunization LSA Answer Key (cont.)

Which of the following do you use for education on side effects and reactions to vaccines?
(Select all that apply.)

- Patient VIS
- Counseling by a physician
- Other _____
- Counseling by a nurse
- Counseling by a pharmacist

Answer: Discussions with a trained healthcare provider who is knowledgeable about vaccine risks and benefits is important as well as concise and up to date patient education materials. Vaccine Information Sheets (VIS) are produced by the CDC and are designed to explain the risks and benefits of specific vaccines to patients, parents, or their legal representative prior to the administration of the vaccine. Federal law requires that VISs be provided before certain vaccines are administered.

References: <http://www.immunize.org/vis/>
<http://www.cdc.gov/vaccinesafety/Concerns/Index.html>
<http://www.immunize.org/catg.d/p3082.pdf>
<http://www.cdc.gov/vaccinesafety/index.html>
<http://www.cdc.gov/vaccinesafety/Activities/vaers/summary-pregnant.html>
<http://www.cdc.gov/vaccinesafety/Activities/VAERS.html>
<http://www.cdc.gov/vaccinesafety/Concerns/thimerosal/index.html>
<http://www.cdc.gov/vaccinesafety/Concerns/gbs.html>



DOCUMENT REASONS FOR NOT ADMINISTERING IMMUNIZATIONS THAT ARE CLINICALLY INDICATED.

Answer: Accurate documentation of reasons why clinically indicated vaccines were not given is an important element of a vaccine program for many reasons. For example a history of allergic reaction to vaccine components or a contraindication based on an underlying medical condition need to be readily apparent to anyone who might be in a position to administer a vaccine based on protocol or standing orders. Accurate tracking of performance measures and quality indicators relies on appropriate documentation of exceptions to generally accepted practices.



IMPLEMENT SYSTEMS TO REMIND PATIENTS AND PROVIDERS WHEN VACCINATIONS ARE DUE AND RECALL PATIENTS WHO ARE OVERDUE.

Competency: Utilize reminder system to identify patients for whom vaccinations are due or overdue.

If a patient begins a 2 or 3 vaccine series, is there a system in place for a reminder for the patient to have another appointment?

- Yes No

Answer: Completion rates for vaccines that require multiple dosing over a period of time can be quite low. Reminder and messaging systems, accelerated schedules for certain vaccines, and

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Adult Immunization LSA Answer Key (cont.)

standing orders can help to increase the rates of completion.

References: http://www2a.cdc.gov/vaccines/ed/whatworks/strategies_list.asp
http://www2a.cdc.gov/vaccines/ed/whatworks/pdfs/computer_reminder.pdf
http://www2a.cdc.gov/vaccines/ed/whatworks/pdfs/standing_order.pdf
http://www2a.cdc.gov/vaccines/ed/whatworks/pdfs/mailed_reminder.pdf

If a patient fails to keep a follow-up appointment, is the patient contacted?

Yes No

Answer: Reminder systems (eg, telephone, mail, other messaging) are an important component of a comprehensive strategy to improve vaccine rates. Other methods include standing orders, patient education, and personal health records.

References: http://www2a.cdc.gov/vaccines/ed/whatworks/strategies_list.asp
http://www2a.cdc.gov/vaccines/ed/whatworks/pdfs/computer_reminder.pdf
http://www2a.cdc.gov/vaccines/ed/whatworks/pdfs/standing_order.pdf
http://www2a.cdc.gov/vaccines/ed/whatworks/pdfs/mailed_reminder.pdf



DOCUMENT THE FUTURE PLAN FOR ADMINISTERING IMMUNIZATIONS.

Answer: Education of patients, parents, and legal guardians about the timing of the next vaccines that are indicated as well as scheduling the appointment for vaccine administration are important interventions to assist in maximizing vaccine completion rates.



REPORT IMMUNIZATIONS TO IMMUNIZATION REGISTRIES AND VACCINE ADVERSE EVENT REPORTING SYSTEM (VAERS).

Competency: Report immunizations to immunization registries and Vaccine Adverse Event Reporting System (VAERS).

Does your state have an immunization registry?

Yes No I don't know

Answer: Immunization registries (also known as immunization information services) strive to improve efficiency and effectiveness by consolidating vaccine administration records into one central and quickly accessible location. Some registries have reminder systems for due or overdue vaccines. Since vaccine administration data from multiple providers are entered into the registry, the ability to access more complete vaccine records for a given patient can be achieved. State by state listing and contact information can be found through the CDC Web site link below.

References: <http://www.cdc.gov/vaccines/programs/iis/contacts-registry-staff.html>
<http://vaers.hhs.gov/index>
<http://www.cdc.gov/vaccinesafety/Activities/VAERS.html>

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Adult Immunization LSA Answer Key (cont.)

If yes to the above question, do you utilize the immunization registry?

Yes No

Answer: Immunization registries offer many potential advantages to practices including the ability to efficiently and effectively access vaccine administration on a given patient who may have received vaccines through multiple providers. Some registries have reminder systems for due or overdue vaccines.

Reference: <http://www.cdc.gov/vaccines/programs/iis/index.html>

Do you know where to find the site for reporting Vaccine Adverse Events Reporting System (VAERS)?

Yes No

Answer: VAERS provides a nationwide mechanism to report adverse events following immunization and serves as a post-marketing safety surveillance program. It also provides a vehicle for disseminating vaccine safety information to the general public as well as healthcare providers and vaccine manufacturers.

References: <http://vaers.hhs.gov/index>.
<http://www.cdc.gov/vaccinesafety/Activities/vaers.html>
<http://www.cdc.gov/vaccinesafety/Activities/VAERS.html>

ADDITIONAL RESOURCES/REFERENCES

<http://www.immunize.org/guide/>
http://www2a.cdc.gov/vaccines/ed/whatworks/pdfs/standing_order.pdf
<http://www.cdc.gov/vaccines/recs/rate-strategies/adultstrat.htm#Performance>
<http://www.immunize.org/adultizcards/index.htm>
<http://www.cdc.gov/vaccinesafety/Concerns/Index.html>
http://www.cdc.gov/vaccinesafety/Vaccines/Common_questions.html
http://www.immunize.org/guide/aov03_setup.pdf
http://www.immunize.org/guide/aov02_start.pdf

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RECOMMENDATIONS—ADULTS

General Recommendations on Immunization in Adults

Source: MMWR supplement February 1, 2013 / 62(01);9-19
http://www.cdc.gov/mmwr/preview/mmwrhtml/su6201a3.htm?s_cid=su6201a3_w

Updated Recommendations for Use of Tetanus Toxoid, Reduced Diphtheria Toxoid and Acellular Pertussis (Tdap) Vaccine from the Advisory Committee on Immunization Practices, 2010

Source: MMWR, January 14, 2011; 60(01):13-15
<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6001a4.htm>

Updated ACIP Recommendations: Prevention of Invasive Pneumococcal Disease Among Adults Using the 23-Valent Pneumococcal Polysaccharide Vaccine (PPSV23) and Conjugate PCV-13

Source: MMWR, September 3, 2010; 59(34):1102-6
<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5934a3.htm>

CDC. Use of 13-valent pneumococcal conjugate vaccine and 23-valent pneumococcal polysaccharide vaccine for adults with immunocompromising conditions: recommendations of the Advisory Committee on Immunization Practices (ACIP).

MMWR 2012;61:816-9.

Prevention and Control of Influenza with Vaccines Recommendations of the Advisory Committee on Immunization Practices (ACIP), 2013

Source: MMWR Recommendations and Reports September 20, 2013 / 62(RR07):1-43
http://www.cdc.gov/mmwr/preview/mmwrhtml/rr6207a1.htm?s_cid=rr6207a1_w

Licensure of a High-Dose Inactivated Influenza Vaccine for Persons Aged ≥65 Years (Fluzone High-Dose) and Guidance for Use—United States, 2010

Source: MMWR, April 30, 2010; 59(16):485-486
<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5916a2.htm>
http://www.cdc.gov/mmwr/preview/mmwrhtml/rr6207a1.htm?s_cid=rr6207a1_w

Using Live, Attenuated Influenza Vaccine for Prevention and Control of Influenza

Source: MMWR, September 26, 2003, Vol. 52/No. RR-13
<http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5213a1.htm>

Quadrivalent Influenza Vaccines

<http://www.cdc.gov/flu/protect/vaccine/quadrivalent.htm>

Prevention of Herpes Zoster: Recommendations of the Advisory Committee on Immunization Practices (ACIP)

Source: MMWR, June 6, 2008; 57(05):1-30
<http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5705a1.htm>
<http://www.cdc.gov/shingles/about/prevention-treatment.html>

Quadrivalent Human Papillomavirus Vaccine

Source: MMWR, March 23, 2007; 56(RR02):1-24
http://www.cdc.gov/mmwr/preview/mmwrhtml/rr56e312a1.htm?s_cid=rr56e312a1_e (female)
http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5920a5.htm?s_cid=mm5920a5_e (male)
<http://www.cdc.gov/std/hpv/STDFact-HPV-and-men.htm> (male)
<http://www.cdc.gov/hpv/vaccine.html>
<http://www.cancer.gov/cancertopics/factsheet/prevention/HPV-vaccine>

Preventing Tetanus, Diphtheria, and Pertussis among Adults: Use of Tetanus Toxoid, Reduced Diphtheria Toxoid and Acellular Pertussis Vaccine

Source: MMWR, December 15, 2006;55(RR-17):1-33
<http://www.cdc.gov/mmwr/PDF/rr/rr5517.pdf>
Source: MMWR 2011;60(01):13-15.
http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6001a4.htm?s_cid=mm6001a4_w
<http://www.cdc.gov/pertussis/pubs-tools/pubs-textbks.html>

Hepatitis B

<http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5516a1.htm>
<http://www.cdc.gov/mmwr/PDF/rr/rr5516.pdf>

A Comprehensive Immunization Strategy to Eliminate Transmission of Hepatitis B Virus Infection in the United States. Part II: Immunization of Adults

Please note: If you are using the HTML version of this document, be sure to access all four HTML links to get the complete content of the document, which includes 3 important appendices.

Source: MMWR, December 8, 2006;55(RR-16):1-25R
<http://www.cdc.gov/mmwr/PDF/rr/rr5516.pdf>
<http://www.cdc.gov/VACCINES/VPD-VAC/hepb/default.htm>

Prevention of Varicella/Chicken Pox

Source: MMWR June 22, 2007 / 56(RR04):1-40
<http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5604a1.htm>
<http://www.cdc.gov/chickenpox/vaccination.html>

Meningococcal vaccine recommendations:

Source: January 28, 2011 / 60(03):72-76
http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6003a3.htm?s_cid=mm6003a3_e&source=govdelivery
<http://www.cdc.gov/features/meningococcal/>
<http://www.cdc.gov/vaccines/vpd-vac/mening/default.htm>

Hepatitis A

Source: May 19, 2006 / 55(RR07):1-23
<http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5507a1.htm>
<http://www.cdc.gov/hepatitis/a/afaq.htm>
<http://www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/hepa.html>

All Pediatric vaccination to age 18

http://www.cdc.gov/mmwr/preview/mmwrhtml/su6201a2.htm?s_cid=su6201a2_w