Implementation of the Standards of Adult Immunization Practice: Addressing Barriers to Increase Adult Immunization Rates

Litjen (L.J) Tan, MS, PhD
Chief Strategy Officer, Immunization Action Coalition
Co-Chair, United States Adult and Influenza Immunization Summit

May 7th, 2019

Today’s Webinar

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Objectives

After this webinar participants will be able to:

- Describe the status of adult immunizations in the United States
  - Burden of adult vaccine preventable diseases
  - Effectiveness of adult vaccines
  - Adult immunization rates
- Explain the Standards for Adult Immunization Practice
- Identify the tools to assist with implementation of the Standards
Disclaimer

The opinions expressed in this presentation are solely those of the presenter and do not necessarily represent the official positions of the Immunization Action Coalition, or the National Adult and Influenza Immunization Summit.

Outline

• The path towards the new Standards for Adult Immunization Practice
• What are the “Standards?”
• Implementing the “Standards” in your practice
  – ASSESS
  – RECOMMEND
  – VACCINATE OR REFER
  – DOCUMENT

Burden of Adult Vaccine-preventable Disease Among U.S. Adults

• Invasive pneumococcal disease (IPD)¹
  – 30,400 total cases and 3,690 total deaths in 2016
  – 81% of all IPD deaths in adults 50 and older
  – 649/100K patients hospitalized annually with community acquired pneumonia (CAP); 6.5% mortality²
• Influenza²
  – 3,000 to 49,000 total related deaths per year
  – ~90% among adults 65 years and older
• Pertussis³
  – 15,808 total reported cases 2017
  – 3,429 among adults 20 years of age & older

Burden of Adult Vaccine-preventable Disease Among U.S. Adults

- Hepatitis B
  - 3,218 acute cases reported 2016
  - 20,900 estimated new infections in 2016
- Zoster
  - About 1 million cases of zoster annually in U.S.
- Measles
  - California/multi-state 2015 outbreak, 55% of infections were in adults 20 years of age and older

Cost Burden of 4 Adult Vaccine-Preventable Diseases in Persons Age 65 Years and Older, United States, 2013

<table>
<thead>
<tr>
<th>Vaccine-Preventable Disease</th>
<th>Estimated # of CASES</th>
<th>Estimated COSTS (Medical &amp; Indirect) (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza</td>
<td>4,019,759</td>
<td>8,312.8</td>
</tr>
<tr>
<td>Pneumococcal</td>
<td>440,187</td>
<td>1,797.1</td>
</tr>
<tr>
<td>Zoster</td>
<td>555,989</td>
<td>3,017.4</td>
</tr>
<tr>
<td>Pertussis</td>
<td>207,241</td>
<td>212.5</td>
</tr>
</tbody>
</table>

Additional $11.2 billion in costs if ages 50 – 64 years included

Cost Burden of Adult Vaccine-Preventable Diseases, 50 years and older, 2015

Unvaccinated individuals are responsible for almost 80 percent of the financial burden!
There are Effective Vaccines!

Vaccine Effectiveness in the Adult Population

- Vaccine effectiveness (VE) varies by vaccine type, the disease outcome, and the age or health of the person vaccinated
  - Zoster (shingles) VE:
    - ZVL: 51% against shingles, and 66% against post-herpetic neuralgia (PHN)¹
    - RZV: 97% against shingles, and 91% against PHN²
  - PCV13 (pneumococcal conjugate vaccine) VE: 45% against vaccine-type pneumococcal pneumonia, and 75% against vaccine-type invasive pneumococcal disease among adults age ≥65 years³

  2. Cunningham, et al. NEJM 2016;1019-1032

Vaccine Effectiveness (cont.)

- Influenza vaccine: varies annually based on antigenic match and also age and health of person being vaccinated – about 60–70% in younger adults and about 30% in adults 65 years and older against medically-attended influenza with a good match¹
  - Vaccine Preventable Disability²
- Hepatitis B vaccine: 90% effectiveness after completing a 3-dose series, though lower in persons with diabetes (e.g., 90% with diabetes and age <40 years, 80% with diabetes and 41–59 years, 65% if 60–69 years and <40% if 70 years or older³)
  - New adjuvanted hepB vaccine improves response significantly⁴

  3. CDC. Use of hepatitis B vaccine for adults with diabetes mellitus. MMWR 2011;60:1709-1711
Another way to look at vaccine effectiveness – negative outcomes averted

Vaccine Effectiveness – Influenza

- Acute respiratory illness or influenza-like illness increases acute MI risk 2x; 5x is those with history of MI
- Influenza vaccination effectiveness: Meta-analyses
  - 29% (95%CI 9,44) against acute MI in persons with existing CVD
  - 36% (95%CI 14,53) against major cardiac events with existing CVD
- Vaccine effectiveness 29% in acute MI prevention
  - “On par or better than accepted preventive measures [as] statins (36%), anti-hypertensives (15–18%), and smoking cessation (26%)”
- Influenza vaccination recommended as secondary prevention by American College of Cardiology and American Heart Association


Frailty Index

Resilience with influenza declines with aging and co-morbid conditions

Graphic courtesy of Janet McIlhaney, MD
Keeping your glass half full!
Exercise, diet, smoking cessation and vaccination

Why are you gambling with your independence this upcoming flu season?

Yet We are Failing to Vaccinate our Adult Population!

Adult Immunization Coverage Rates, National Health Interview Surveys, 2012–2015

Influenza Vaccination Coverage Among U.S. Adults, Past Four Seasons

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Persons &gt; 18 yrs</td>
<td>43.6</td>
<td>41.7*</td>
<td>43.3*</td>
<td>37.1*</td>
</tr>
<tr>
<td>Persons 18-49 yrs, all</td>
<td>33.5</td>
<td>32.7</td>
<td>33.6</td>
<td>26.9*</td>
</tr>
<tr>
<td>Persons 18-49 yrs, high risk</td>
<td>39.3</td>
<td>39.5</td>
<td>39.3</td>
<td>31.3*</td>
</tr>
<tr>
<td>Persons 50-64 yrs</td>
<td>47.0</td>
<td>43.6*</td>
<td>45.4*</td>
<td>39.7*</td>
</tr>
<tr>
<td>Persons ≥ 65 yrs</td>
<td>66.7</td>
<td>63.4*</td>
<td>65.3*</td>
<td>59.6*</td>
</tr>
</tbody>
</table>

* Statistically significant decline/increase from the previous season (p<0.05).

The new National Vaccine Advisory Committee Standards for Adult Immunization Practice (the “Standards”)

The new National Vaccine Advisory Committee Standards for Adult Immunization Practice (the “Standards”)

Current Adult Immunization Environment

- Adults access medical care at multiple entry points
- There are many types of immunization providers and sites. (including, but not limited to, physicians – generalists and specialists, pharmacists, nurses, physician assistants, nurse practitioners, retail stores and clinics, community immunizers, worksites, public health departments, hospitals, travel clinics)
- Many more adults have become aware of annual influenza vaccination, but fewer are aware of other recommended adult vaccines
Current Adult Immunization Environment

- Many missed opportunities occur to assess patient vaccination needs
  - Patients open to vaccination when recommended by their provider.
- Differences in vaccines covered by Medicare B versus D creates challenges for some providers, but not others
- Vaccine providers are paid different rates by different payers. Not all providers vaccinate. Pay can differ based on in-network status. Payment myths exist.
- Continued confusion regarding Affordable Care Act coverage

Current Adult Immunization Environment

- There is no federal “Vaccines for Adults” program
  - New York State does have a small program for the uninsured
- Manufacturers offer Patient Assistance Programs
- Challenges remain with adult immunization documentation among providers
  - Immunization registries and EHRs vary across states and provider networks, respectively
- MACRA/MIPS provide opportunities to improve documentation and communication about vaccination among different providers
- All this is happening in the context of, and in support of, the NVAC recommendations to improve adult immunization

Fundamental Paradigm Shift in Adult IZ

- Adult immunization standards should be applied to all providers of care to adults, those who do and do not vaccinate
- New standards recognize the importance of the healthcare provider recommendation for patients to receive needed vaccines
- Highlights the current low vaccination rates among U.S. adults
- Reflects the changed environment within which adult vaccines are now given
Fundamental Paradigm Shift in Adult IZ

ALL providers of health care to adults are to:

1. **ASSESS** patient’s status for all recommended vaccines at each clinical encounter;
2. Educate and counsel the patient on the recommended vaccines and strongly **RECOMMEND** needed vaccines; and,
3. **VACCINATE** at the same visit, OR for providers that do not stock the recommended vaccine, **REFER** the patient to a vaccinating provider.
4. **DOCUMENT** the receipt of vaccine by the patient

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Implementing The new National Vaccine Advisory Committee Standards for Adult Immunization Practice (the “Standards”)

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**ASSESS**

- Missed opportunities abound in adult immunizations resulting in the low vaccination rates that we see
- Need to get over the barrier of vaccinations not being addressed in clinical encounters, with many excuses:
  - Competing priorities
  - Delaying vaccines until next visit
  - Not my clinical responsibility...
ASSESS

• Assess your adult patient based on "H-A-L-O:"
  • H – Health condition
  • A – Age
  • L – Lifestyle
  • O – Occupational status

• In actuality, most patients are not aware of the adult vaccines that they need and with a provider recommendation, will accept vaccination

Assess adult vaccine status at every clinical encounter!

• Stay up-to-date on latest ACIP-recommended vaccines
• Utilize immunization information systems and electronic health records to automate assessment and generate reminders/recalls
• Train other office staff to assess patient prior to physician consultation
• Consider a patient self-assessment at check in
  • Use videos in waiting room, preferably personalized
Assess adult vaccine status at every clinical encounter!

- Stay up-to-date on latest ACIP-recommended vaccines
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Assess adult vaccine status at every clinical encounter!

• Implement standing orders
  • Resources
    • Take A Stand™: www.standingorders.org
    • IAC: http://www.immunize.org/standing-orders/
  • Train other office staff to assess patient prior to physician consultation
    • Incorporate into routine patient intake
    • When vital signs are taken
  • Assess your patients’ records for missed opportunities
  • Use reminder/recalls to get your patients thinking about, and coming in for, vaccines
Assess adult vaccine status at every clinical encounter!

- Implement non-patient specific orders (standing orders)
  - Resources
    - Take A Stand™: www.standingorders.org
    - IAC: http://www.immunize.org/standing‐orders/
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http://www.adultvaccination.org/professional‐resources/adult/reminder‐postcard.pdf
Assess adult vaccine status at every clinical encounter!

- Adults do think that immunization is important—they just don’t realize that they need vaccines throughout their lives beyond influenza vaccine.
- If a trusted HCP recommends a vaccine with tailored reasons for why it's important, they are likely to get it.
- If vaccines are not discussed, adults assume it's not important.
- So, assessment is critical, but so is the strong and clear recommendation.
- For CDC’s fact sheet on assessment:

A STRONG RECOMMENDATION

- The healthcare professional is the most valued and trusted source of health information for adults.
- Make the recommendation regardless of whether you stock the vaccine; or intend to vaccinate.
  - Be clear, confident, concise, consistent.
- You have to be strong in your recommendation as a half-hearted attempt can backfire.

S-H-A-R-E the recommendation (CDC)

- S – Share the reasons why the vaccine is important considering patient’s H-A-L-O.
- H – Highlight your own personal experiences to show benefits of, and boost confidence in, vaccines.
- A – Address patient’s questions and concerns.
- R – Remind that adult VPDs are present and that their vaccination also protects their family.
- E – Explain the costs and impact of getting sick.
A strong recommendation

- Remember, if a patient declines vaccination the first time, it does not mean that s/he will decline on a second offering later so do not stop recommending the vaccine!
- But if patient declines:
  - Reinforce the benefits of getting vaccinated during the current visit
  - Send educational materials home or give trusted websites to review
  - Use reminder/recall systems to remind patient about needed vaccines
  - Document your conversation and declination, and continue recommending at the next visit

VACCINATE OR REFER!

- Missed opportunities are the number one reason why vaccinations are missed and coverage rates are low
- Thus, recommend and offer vaccines at the same visit!
  - Data shows that patients offered vaccination at the same time as they received the recommendation for the vaccine are much more likely to accept the vaccine
- If you do not vaccinate, please REFER the patient to a known immunizing provider and follow up to ensure receipt!

When vaccinating, remember to:

• Provide the appropriate vaccine information statements (VIS) – it’s the law!
• Ensure your staff are trained to administer vaccines
• Ensure that all vaccines are stored and handled properly to maintain cold chain and vaccine viability
• Follow proper infection control procedures
• Use standing orders to routinize and simplify administration
• Pay attention to vaccine adverse events and know how to manage them!


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Referral

- Refer your patients to other immunization providers for vaccines that your practice does not stock
- Give strong recommendation and then refer patient
- Confirm that patients received recommended vaccines by following up at the next visit. And document!
- Possible vaccine referral options
  - HealthMap Vaccine Finder (https://vaccine.healthmap.org/)
  - Health Departments often provide routine vaccinations or can help you: https://www.vaccines.gov/getting/where/ and click on the appropriate state to learn more
  - Pharmacies are convenient for many patients

DOCUMENT VACCINE RECEIPT!

- After Vaccination
  - Record vaccination in patients’ medical records
  - Provide documentation of vaccines received to patients for their personal records.
  - Document vaccinations in immunization information systems (IIS)
    - Important for continuity of care and to prevent duplicative vaccination
    - Consider giving patient own vaccine record
- After Referral
  - Follow up with your patient to ensure that recommended vaccines were indeed received

Available for purchase on http://www.immunize.org/shop/record-cards.asp#adultcard
Know why your IIS is important

- Immunization Information Systems can help by:
  - Consolidating vaccination records for patients
  - Assisting in assessment for needed vaccines
  - Integrating with reminder-recall systems to automate process
  - Being used in quality measures and coverage tracking
  - Helping assessment of practice’s immunization rates
  - Prevents over immunizations and reduces missed opportunities for vaccination
- Learn more about IIS at:
  - http://www.cdc.gov/vaccines/programs/iis/training.html
- IIS contacts in each state can be found at:
  - http://www.cdc.gov/vaccines/programs/iis/contacts-registry-staff.html
- Summit has a marketing brochure to providers:

New One-page Fact Sheets from the American Immunization Registry Association (AIRA)

- Series of one-sheet resources to communicate the role and value of immunization information systems (IIS) for use by the IIS community
  1. 4 Ways AIRA Supports the IIS Community
  2. EHR and IIS (Infographic)
  3. How IIS Support a Patient’s Journey (Infographic)
  4. Value of IIS (Infographic)
  5. Why a National IIS Doesn’t Exist

DOCUMENT VACCINE RECEIPT!

- Remember that documenting vaccinations in the IIS is incentivized in MIPS
- For more information, see:
- For the CDC’s fact sheet on documentation:
Document any adverse events!

- Like any medication or medical intervention, vaccines are not risk free and will have the potential to cause adverse reactions
- Most vaccine adverse events are rare and usually minor
- Ensure that your practice is prepared to handle severe reactions
- REPORT any potential adverse events associated with vaccination to the Vaccine Adverse Events Reporting System (VAERS)
- Remember that health care providers are required by law to report to VAERS:
  - Any conditions on the Reportable Events Table (VICP)
  - Vaccine adverse events that are listed in the manufacturer’s package insert
  - Clinically significant or unexpected events following vaccination

More information on the IAC/MQA Quality Payment Program, MIPS, and Advanced APMs can be found at www.sac.org. Additional resources for providers eligible for MIPS and Advanced APMs may be provided by professional physician, nurse, and physician assistant associations.

Ultimate Goal of the new Standards - “Immunization Neighborhood”

• Purpose:
  • Collaboration, Coordination and Communication among immunization stakeholders dedicated to meeting the immunization needs of the patient and protecting the community from vaccine preventable diseases.
  • To see all supporting organizations and other resources: http://www.izsummitpartners.org/adult-immunization-standards/
  • See Success stories that received awards: https://www.izsummitpartners.org/immunization-excellence-awards/
  • Also find tools to support implementation, eg. speaker slide deck.

Brand NEW resource from IAC!

http://www.immunize.org/guide/

Visit IAC Resources!

• Read our publications!
  – http://www.immunize.org/publications/
• Visit our websites!
  – www.immunize.org
  – www.vaccineinformation.org
  – www.standingorders.org
  – www.izcoalitions.org
  – www.izsummitpartners.org (Summit)
• Stay ahead of the game! Subscribe to our updates!
  – http://www.immunize.org/subscribe/
Thank You!

Updating the NVAC Adult Immunization Standards of Practice

- Summit Access and Provider WG established a writing subcommittee
- Subcommittee reviewed existing standards of adult immunization practices (e.g., IDSA-2007, NVAC-2003) and developed and refined multiple drafts
- NVAC agreed to review draft standards in June 2013, and voted to approve the updated Standards its September 2013 NVAC meeting
- Available online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3904889/pdf/phr129000115.pdf.

When vaccinating, remember to

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- Ensure your staff are trained to administer vaccines
- Ensure that all vaccines are stored and handled properly to maintain cold chain and vaccine viability
- Follow proper infection control procedures
- Use standing orders to routinize and simplify administration
- Pay attention to vaccine adverse events and know how to manage them!
Place of flu vaccination among children and adults, early 2014-15 flu season, National Immunization Survey and National Internet Flu Survey

<table>
<thead>
<tr>
<th>Place</th>
<th>Percentage Vaccinated at this type of place</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctor’s Office</td>
<td>90.3%</td>
</tr>
<tr>
<td>Hospital, Emergency Department</td>
<td>78.3%</td>
</tr>
<tr>
<td>Clinic, Health Center or Other Medical Place</td>
<td>77.3%</td>
</tr>
<tr>
<td>Health Department</td>
<td>77.3%</td>
</tr>
<tr>
<td>Pharmacy/Pharmacist</td>
<td>71.3%</td>
</tr>
<tr>
<td>Grocery/Drugstore Pharmacy</td>
<td>70.3%</td>
</tr>
<tr>
<td>Grocery/Drugstore Pharmacy</td>
<td>70.3%</td>
</tr>
<tr>
<td>Food Store</td>
<td>69.3%</td>
</tr>
<tr>
<td>Other Pharmacy</td>
<td>67.3%</td>
</tr>
<tr>
<td>School</td>
<td>66.3%</td>
</tr>
<tr>
<td>College</td>
<td>66.3%</td>
</tr>
<tr>
<td>Other Place</td>
<td>66.3%</td>
</tr>
</tbody>
</table>

†† Pharmacy/Store includes pharmacy or drugstore and local supermarket or grocery store.
** Other place includes military-related place, other school such as trade school, trade, and other unspecified non-medical place.

Available at: http://www.cdc.gov/flu/fluvaxview/nifs-estimates-nov2014.htm

Example of Practice Standards Implementation: Osterhaus Pharmacy (Maquoketa, IA)

- Eastern Iowa is a large rural area, people have limited access to health care services and local vaccination rates are some of the lowest in the state. Osterhaus Pharmacy initiated a process to address the problem by identifying 272 patients with diabetes, the largest at-risk group, in its system and flagged them for outreach and immunization with Tdap, zoster, pneumococcal, hepatitis B, and influenza vaccines.
  - In 2014, nearly 200 of these patients had been screened and vaccinated. Before this pharmacist intervention, only three of these patients were up-to-date on their immunization.
- Teamed with two local physician clinics to coordinate immunization records, screen and immunize patients, and educate patients on the importance of staying current with recommended immunizations.

Example of Practice Standards Implementation: Osterhaus Pharmacy (Maquoketa, IA)

- Partnered with a local physician to establish eight collaborative practice agreements and one emergency protocol allowing pharmacists to immunize any adult patient without a prescription.
- Developed a fax form to facilitate communication between pharmacists and clinics and easy-to-use screening tool to identify required immunizations.
- Pharmacists held phone conferences with local nurse practitioners and physician assistants to bring them up-to-date on current guidelines.
  - This collaboration has improved pharmacist-nurse-physician relationships and increased trust between providers. It has also helped verify patient immunization records and improved patients’ perception of the healthcare system, helping them see that pharmacists, physicians, and nurses work together as a team to provide high quality care.
GUIDANCE FOR MODIFYING NON-PATIENT SPECIFIC STANDING ORDERS IN NEW YORK STATE

DISCLAIMER

This guidance document does not constitute legal advice and is not a substitute for independent legal counsel. Questions about standing order requirements should be directed to the New York State Education Department. Before issuing a modified non-patient specific standing order, please contact your legal counsel.

BACKGROUND

Non-patient specific standing orders and protocols (hereinafter, “standing orders”) are a recommended, evidenced-based practice that increases vaccination coverage for both children and adults. The Immunization Action Coalition (“IAC”) has developed a series of template standing orders for those vaccines that are routinely administered to adults and children. IAC’s template standing orders are reviewed by immunization experts at the Centers for Disease Control and Prevention (CDC).

However, IAC’s standing order templates should be modified to conform to the regulations of the New York State Department of Education. Attached to this document is a markup of an IAC standing order template, indicating where suggested modifications should be made, in accordance with the guidance below.

Please ensure that the most up-to-date version of IAC’s standing orders are used, and that standing orders are only used for those immunizations for which they are permitted pursuant to New York State Education Law available at http://www.op.nysed.gov/prof/nurse/nonpatient-specific-orders-and-protocols.htm. The most current versions of IAC’s template standing orders can be accessed on the IAC website at www.immunize.org/standing-orders.

GUIDANCE FOR MODIFYING STANDING ORDERS

Sections (A) through (E) below correspond to annotations (A) through (E) in the attached markup of IAC’s template standing order.

(A) Policy Section

Suggested—Replace strike-out language in the IAC standing order template with one of the following, as applicable:

1. Registered professional nurses (RNs) employed by or under contract with [insert name of organization legally authorized by the New York State Education Department to employ or contract with RNs to provide nursing services1] who are currently employed by, or act as an agent of, the Visiting Nurses Association or an equivalent organization legally authorized to provide nursing services as determined by the New York State Education Department or by a State, county, municipal, or other government entity.

1 All RNs immunizing children in accordance with non-patient specific orders and protocols must be employed by, or act as an agent of, the Visiting Nurses Association or an equivalent organization legally authorized to provide nursing services as determined by the New York State Education Department or by a State, county, municipal, or other government entity.
certified in cardio-pulmonary resuscitation (CPR) by a program of the American Red Cross, the American Heart Association, or an equivalent organization acceptable to the New York State Education Department may administer [insert name of vaccine] to patients under this non-patient specific order and protocol. RNs are limited under this order to administering this vaccine only in the course of their employment or pursuant to a contract with [insert the name of the organization listed above]. RNs must maintain or ensure the maintenance of a copy of the non-patient specific order(s) and protocol(s) prescribed or ordered by the licensed physician or certified nurse practitioner authorizing them to administer this vaccine and applicable anaphylactic agents.

—OR—

2. The following registered professional nurses (RNs) who are currently certified in cardio-pulmonary resuscitation (CPR) by a program of the American Red Cross, the American Heart Association, or an equivalent organization acceptable to the New York State Education Department may administer [insert name of vaccine], which has been authorized by [insert the name of authorizing party].

Last Name _______________ First Name _______________ License No. ________
[insert additional names, as necessary]

RNs must maintain or ensure the maintenance of a copy of the non-patient specific order(s) and protocol(s) prescribed or ordered by the licensed physician or certified nurse practitioner authorizing them to administer vaccines and anaphylactic agents.

(B) Vaccine Information Statements Section

Suggested—Add the following language after the language in the IAC standing order template:

Inform each patient of potential side effects and adverse reactions, orally and in writing, prior to immunization. Obtain consent to administer vaccine from the patient. In the case of a minor patient, the person who is legally responsible for such patient shall give prior written consent to administer the vaccine, or shall be in attendance when the vaccine is administered and have given prior consent to administer vaccine.

(C) Document Vaccination Section

Suggested—Replace strike-out language in the IAC standing order template with the following:

Document the following administration and follow-up information as provided below:

Medical Record: Record the patient’s name, the date the vaccine was administered, the name of the vaccine, the vaccine manufacturer and lot number, the vaccination site and route, address of administering site, the name and title of the person administering the vaccine, and recommendations for future immunizations. You must also document (in the

2 Refer to NYSED’s website for a list of child and adult immunizations that can be administered under a non-patient specific order and protocol available at http://www.op.nysed.gov/prof/nurse/nonpatient-specific-orders-and-protocols.htm.

3 Id.
medical record or office log), the publication date of the VIS and the date it was given to the patient. If vaccine was not administered, record the reason(s) for non-receipt of vaccine (e.g., medical contraindication, patient refusal, etc.) This information must be recorded and maintained in accordance with 8 NYCRR section 29.2(a)(3), which provides that “unless otherwise provided by law, all patient records must be retained for at least six years” and “obstetrical records or records of minor patients must be retained for at least six years, and until one year after the minor patient reaches the age of 21 years.”

Signed Certificate of Immunization: Record the patient’s name, date of vaccination, name and location of the administering clinic, name of administering nurse, name of vaccine, manufacturer and lot number of vaccine, and recommendations for future immunizations. This must be given to the patient or the person legally responsible for such patient (where applicable).

New York State Immunization Information System (NYSIIS): For all individuals under the age of 19 and with verbal or written consent for individuals 19 years of age and older, document administration of vaccine in NYSIIS.

Communicate the information provided to the patient to the patient’s primary care provider, if one exists and with the consent of the patient or the patient’s legal representative.

(D) Medical Emergencies Section

Suggested—Add the following language to the language in the IAC standing order template:

Additionally, RNs shall be responsible for having emergency anaphylaxis treatment agents, related syringes, and needles at the location of the administering clinic.  

(E) Provider Authorization Section

Suggested—Replace strike-out language in the IAC standing order template with the following:

This non-patient specific order and protocol shall remain in effect for all patients of [insert name of practice/clinic] from the order beginning date of __________ until __________ or until rescinded, whichever occurs first.

Signed: ____________________  License No. __________  Date: __________

[insert printed name of licensed physician or certified nurse practitioner here]

4 A registered professional nurse shall be authorized to administer anaphylaxis treatment agents for the emergency treatment of anaphylaxis pursuant to a non-patient specific order and protocol prescribed by a licensed physician or certified nurse practitioner. The registered professional nurse shall either maintain or ensure the maintenance of a copy of the non-patient specific order and protocol to administer these agents.
STANDING ORDERS FOR Administering Influenza Vaccine to Children and Adolescents

Purpose
To reduce morbidity and mortality from influenza by vaccinating all children and adolescents who meet the criteria established by the Centers for Disease Control and Prevention’s Advisory Committee on Immunization Practices (ACIP).

Policy
Where allowed by state law, standing orders enable eligible nurses and other healthcare professionals (e.g., pharmacists) to assess the need for vaccination and to vaccinate children and adolescents who meet any of the criteria below.

NOTE: Live attenuated influenza vaccine (LAIV4; FluMist), is not recommended by CDC’s Advisory Committee on Immunization Practices for use in the U.S. during the 2017–18 influenza season. Because LAIV4 is still a licensed vaccine that might be available and that some providers might elect to use, for informational purposes, reference is made to previous recommendations for its use.

Procedure
1. Assess Children and Adolescents for Need of Vaccination against influenza
   - All children and teens 6 months of age and older are recommended to receive influenza vaccination each year.
   - A second dose of influenza vaccine is recommended 4 weeks or more after the first dose for children age 6 months through 8 years if they have not received 2 doses in previous years (not necessarily in the same season).

2. Screen for Contraindications and Precautions
   **Contraindications for use of all influenza vaccines**
   Do not give influenza vaccine to a child or adolescent who has experienced a serious systemic or anaphylactic reaction to a prior dose of the vaccine or to any of its components. For a list of vaccine components, refer to the manufacturer’s package insert (www.immunize.org/packageinserts) or go to www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf.

   **Contraindications only for use of live attenuated influenza vaccine (LAIV4; FluMist, nasal spray)**
   Do not give live attenuated influenza vaccine (LAIV4; nasal spray) to a child or adolescent who:
   - is pregnant
   - is age 2 through 4 years who has received a diagnosis of asthma or who has experienced wheezing or asthma within the past 12 months, based on a healthcare provider’s statement or medical record
   - has immunosuppression (including that caused by medications or HIV)
   - is age 2 through 17 years and is on long-term aspirin or salicylate-containing therapy
   - received influenza antivirals (e.g., amantadine, rimantadine, zanamivir, or oseltamivir) within the previous 48 hours
   - is a close contact of or who provides care for a severely immunosuppressed person who requires a protective environment

   **Precautions for use of all influenza vaccines**
   - Moderate or severe acute illness with or without fever
   - History of Guillain-Barré syndrome within 6 weeks of a previous influenza vaccination

   **Precautions for use of LAIV only**
   - Age 5 years or older with asthma
   - Other chronic medical conditions that might predispose the person to complications of influenza infection (e.g., other chronic pulmonary, cardiovascular [excluding isolated hypertension], renal, hepatic, neurologic, hematologic, or metabolic disorders [including diabetes mellitus])

   **NOTE REGARDING PATIENTS WITH EGGS ALLERGY:** People with egg allergy of any severity can receive any licensed
and recommended influenza vaccine (i.e., any inactivated influenza vaccine [IIV] or recombinant influenza vaccine [RIV]) that is otherwise appropriate for the patient’s age and health status. For people with a history of severe allergic reaction to egg involving any symptom other than hives (e.g., angioedema, respiratory distress, light-headedness, or recurrent emesis), or who required epinephrine or another emergency medical intervention, the selected vaccine should be administered in a medical setting (e.g., health department or physician office). Vaccine administration should be supervised by a healthcare provider who is able to recognize and manage severe allergic conditions.

3 Provide Vaccine Information Statements

Provide all patients (or, in the case of minors, their parent, or legal representative) with a copy of the most current federal Vaccine Information Statement (VIS). Provide non-English speaking patients with a copy of the VIS in their native language, if one is available and desired; these can be found at www.immunize.org/vis. (For information about how to document that the VIS was given, see section 6 titled “Document Vaccination.”)

4 Prepare to Administer Vaccine

For vaccine that is to be administered intramuscularly, choose the needle gauge, needle length, and injection site according to the following chart:

<table>
<thead>
<tr>
<th>AGE OF CHILD</th>
<th>NEEDLE GAUGE</th>
<th>NEEDLE LENGTH</th>
<th>INJECTION SITE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infants age 6 through 11 months</td>
<td>22–25</td>
<td>1”</td>
<td>Anterolateral thigh muscle</td>
</tr>
<tr>
<td>Age 1 through 2 years</td>
<td>22–25</td>
<td>1–1⅛”</td>
<td>Anterolateral thigh muscle</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5/8”–1”</td>
<td>Deltoid muscle of arm</td>
</tr>
<tr>
<td>Age 3 through 10 years</td>
<td>22–25</td>
<td>5/8”–1”</td>
<td>Deltoid muscle of arm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1–1¼”</td>
<td>Anterolateral thigh muscle</td>
</tr>
<tr>
<td>Age 11 years and older</td>
<td>22–25</td>
<td>5/8”–1”</td>
<td>Deltoid muscle of arm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1–1½”</td>
<td>Anterolateral thigh muscle</td>
</tr>
</tbody>
</table>

* A 5/8” needle may be used in patients weighing less than 130 lbs (<60 kg) for IM injection in the deltoid muscle only if the skin is stretched tight, the subcutaneous tissue is not bunched, and the injection is made at a 90-degree angle to the skin.

For vaccine that is to be administered intranasally or intradermally, prepare the vaccine according to directions in the package insert.

5 Administer Influenza Vaccine according to the age of patient and desired route of vaccination described below:

<table>
<thead>
<tr>
<th>TYPE OF VACCINE</th>
<th>AGE GROUP</th>
<th>DOSE</th>
<th>ROUTE</th>
<th>INSTRUCTIONS*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inactivated influenza vaccine (IIV)</td>
<td>6–35 months</td>
<td>Fluzone: 0.25 mL Flulaval: 0.5 mL</td>
<td>Intramuscular (IM)</td>
<td>Administer vaccine in anterolateral thigh muscle; alternatively, children age 12 through 23 months may receive injection in deltoid muscle.</td>
</tr>
<tr>
<td>Inactivated influenza vaccine (IIV)</td>
<td>3 years and older</td>
<td>0.5 mL</td>
<td>Intramuscular (IM)</td>
<td>Administer vaccine in deltoid muscle or, alternatively, in anterolateral thigh muscle.</td>
</tr>
<tr>
<td>IIV-intradermal</td>
<td>18 through 64 years</td>
<td>0.1 mL</td>
<td>Intradermal (ID)</td>
<td>Insert needle of the microinjection system at a 90 degree angle in the deltoid area.</td>
</tr>
<tr>
<td>Cell culture-based IIV (cIIV)</td>
<td>4 years and older</td>
<td>0.5 mL</td>
<td>Intramuscular (IM)</td>
<td>Administer vaccine in deltoid muscle.</td>
</tr>
<tr>
<td>Recombinant influenza vaccine (RIV)</td>
<td>18 years and older</td>
<td>0.5 mL</td>
<td>Intramuscular (IM)</td>
<td>Administer vaccine in deltoid muscle.</td>
</tr>
<tr>
<td>Live attenuated influenza vaccine (LAIV)</td>
<td>Healthy, age 2 years and older</td>
<td>0.2 mL (0.1 mL into each nostril)</td>
<td>Intranasal spray (NAS)</td>
<td>Spray half of vaccine into each nostril while the patient is in an upright position.</td>
</tr>
</tbody>
</table>

* For complete instructions on how to administer influenza vaccine, see “How to Administer Intramuscular, Intradermal, and Intranasal Influenza Vaccines” at www.immunize.org/catg.d/p2024.pdf.
6 Document Vaccination

Document each patient's vaccine administration information and follow up in the following places:

**Medical record:** Document the date the vaccine was administered, the manufacturer and lot number, the vaccination site and route, and the name and title of the person administering the vaccine. You must also document, in the patient's medical record or office log, the publication date of the VIS and the date it was given to the patient (parent/legal representative). Note that medical records/charts should be documented and retained in accordance with applicable state laws and regulations. If vaccine was not administered, record the reason(s) for non-receipt of the vaccine (e.g., medical contraindication, patient refusal). Offer the vaccine to the patient at the next visit.

**Personal immunization record card:** Record the date of vaccination and the name/location of the administering clinic.

**Immunization Information System (IIS) or “registry”:** Report the vaccination to the appropriate state/local IIS, if available.

7 Be Prepared to Manage Medical Emergencies

Be prepared for management of a medical emergency related to the administration of vaccine by having a written emergency medical protocol available, as well as equipment and medications. For IAC’s “Medical Management of Vaccine Reactions in Children and Teens,” go to www.immunize.org/catg.d/p3082a.pdf. To prevent syncope in older children, vaccinate patients while they are seated or lying down and consider observing them for 15 minutes after receipt of the vaccine.

8 Report All Adverse Events to VAERS

Report all adverse events following the administration of influenza vaccine to the federal Vaccine Adverse Event Reporting System (VAERS). To submit a VAERS report online (preferred) or to download a writable PDF form, go to https://vaers.hhs.gov/reportevent.html. Further assistance is available at (800) 822-7967.

Standing Orders Authorization

This policy and procedure shall remain in effect for all patients of the _______________________, NAME OF PRACTICE OR CLINIC effective __________ until rescinded or until __________.

Medical Director ___________________________ NAME / SIGNATURE ___________________________ DATE __________