1. **Is there a safety cap on the plunger of the intradermal flu syringe?**
   The Fluzone Intradermal injection device has a needle shield to cover the needle after giving an injection. To activate the needle shield... remove the needle from the patient's skin, direct the needle away from you and others (best to point the needle toward the sharps container to avoid a needle-stick), push very firmly with the thumb on the plunger of the device. You will hear a click when the shield extends to cover the needle. Here is the link to the YouTube Fluzone Intradermal administration video mentioned in the webinar. www.youtube.com/watch?v=qXgm7eIXfvy

2. **What is the frequency of repeat TDAP?**
   At this point, patients only need 1 Tdap dose during their lifetime.

   Taken from the footnotes of the Recommended Adult Immunization Schedule 2012, “Administer a one-time dose of Tdap to adults younger than age 65 years who have not received Tdap previously or for whom vaccine status is unknown to replace one of the 10-year Td boosters.”
   “Tdap can be administered regardless of interval since the most recent tetanus or diphtheria-containing vaccine.”
   “Adults 65 years and older may receive Tdap.”

3. **Is there a different VIS for the ID vaccine?**
   No, not that I know of. The Fluzone Intradermal is a trivalent inactivated influenza (TIV) vaccine. The Influenza TIV vaccine information statement may be provided to patients. Here is the link to the Influenza (TIV) VIS on the Immunization Action Coalition website. http://www.immunize.org/vis/vis_flu_inactive.asp. Or the link to the CDC website. http://www.cdc.gov/vaccines/pubs/vis/default.htm#flu

4. **Is PCV13 similar to high dose Fluvax?**
   No. PCV13 is the Pneumococcal Conjugate Vaccine that protects against 13 strains of the Streptococcus pneumonia bacterium. Fluvax is an inactivated influenza vaccine that is approved for use in New Zealand. Fluzone High-Dose is an inactivated influenza vaccine that is approved for patients 65 years and older. The High-Dose vaccine contains 4 times the amount of antigen contained in regular flu shots. The additional antigen is intended to create a stronger immune response in the person getting the vaccine.

5. **What about Zostavax being lowered to 50 years old?**
   Although Zostavax is FDA-approved for use among persons 50 years and older, the Advisory Committee on Immunization Practices (ACIP) to the Centers for Disease Control and Prevention (CDC) recommends that vaccination begins at 60 years of age.

   Here is an excerpt from the Herpes Zoster Vaccination Information page on the CDC website related to the ACIP recommendations of vaccination of persons age 50 through 59 years. “In 2011, FDA expanded the age indications for Zostavax to include adults 50 through 59 years old for preventing herpes zoster. This decision was based on a large study showing that the vaccine reduced the risk of herpes zoster by approximately 70 percent.”
For persons age 50 through 59 years, the risk of getting shingles and having prolonged pain after shingles is much lower than for people 60 years and older. In the past several years, there have been shortages and delays in getting Zostavax. Based on such considerations, ACIP is not issuing a recommendation for routine use of zoster vaccine in adults 50 through 59 years at this time. However, health care providers can still offer herpes zoster vaccine to patients 50 through 59 years. Health care providers may want to first consider whether the patient would have poor tolerance to herpes zoster or postherpetic neuralgia symptoms. For example, if the patient has:

- Preexisting chronic pain, severe depression, or other co-morbidities
- Intolerance to treatment medications due to hypersensitivity or interactions with other medications
- Extenuating employment-related factors

No data are available about the effectiveness of zoster vaccine in adults who become immunosuppressed after their vaccination.

Here is a link to the Herpes Zoster Vaccination Information page on the CDC website where this information was obtained. [http://www.cdc.gov/vaccines/vpd-vac/shingles/hcp-vaccination.htm#recommendations](http://www.cdc.gov/vaccines/vpd-vac/shingles/hcp-vaccination.htm#recommendations)

6. What is your recommendation to start administering the flu vaccine?
The recommendation is to start administering the flu vaccine as soon as it becomes available from the manufacturer and continue until the supply of vaccine is depleted.

Here is an excerpt from the Influenza: Questions and Answers Information about the disease and vaccines from the Immunization Action Coalition. “Health experts recommend that patients may be vaccinated as soon as vaccine is available in their clinic, which can be as early as August or September. Vaccinations should continue into the winter and spring, even until April or May.”


7. Is Influenza vaccine good for 6 months or 1 year this year?
The Influenza vaccine is good for 1 year. The vaccine is given each year because immunity decreases after a year and because each year’s vaccine is formulated to prevent only that year’s anticipated influenza viruses.

8. What if a patient has recurrent episodes of Shingles and has received 1 dose of Zoster, is it ever recommended to repeat the vaccine?
Not at this time. The ACIP recommends only a single dose of zoster vaccine for adults 60 years of age and older.

9. Would you follow the same skin prep guidelines with the intradermal vaccine as you would the IM? (ex: alcohol prep pad)
Yes. Aseptic technique should be followed prior to administration of any vaccine.

10. Does Medicare Part B pay for Boostrix or do we go through private insurances?
No. Boostrix (Tdap) is not a Part B covered vaccine. Medicare Part B covers Influenza, Pneumococcal and Hepatitis B (for certain high risk individuals) vaccines. Boostrix would need to be billed through private insurance or have the patient pay the cash price.

11. **Will Fluzone ID be covered by many commercial prescription insurance companies?**
The individual insurance companies will have to determine if they will cover Fluzone Intradermal. So coverage will vary from one plan to the next. Many times vaccines are covered under medical and not prescription insurance. With more pharmacists providing vaccines, this is starting to change.

12. **What is the reasoning behind only administering Zostavax to 60 and older? If it is FDA approved, what is the harm?**
   Many prescribers are recommending it. Although Zostavax is FDA-approved for use among persons 50 years and older, the Advisory Committee on Immunization Practices (ACIP) to the Centers for Disease Control and Prevention (CDC) recommends that vaccination begins at 60 years of age.

   Here is an excerpt from the Herpes Zoster Vaccination Information page on the CDC website related to the ACIP recommendations of vaccination of persons age 50 through 59 years. “In 2011, FDA expanded the age indications for Zostavax to include adults 50 through 59 years old for preventing herpes zoster. This decision was based on a large study showing that the vaccine reduced the risk of herpes zoster by approximately 70 percent.

   For persons age 50 through 59 years, the risk of getting shingles and having prolonged pain after shingles is much lower than for people 60 years and older. In the past several years, there have been shortages and delays in getting Zostavax. Based on such considerations, ACIP is not issuing a recommendation for routine use of zoster vaccine in adults 50 through 59 years at this time. However, health care providers can still offer herpes zoster vaccine to patients 50 through 59 years. Health care providers may want to first consider whether the patient would have poor tolerance to herpes zoster or postherpetic neuralgia symptoms. For example, if the patient has:
   - Preexisting chronic pain, severe depression, or other co-morbidities
   - Intolerance to treatment medications due to hypersensitivity or interactions with other medications
   - Extenuating employment-related factors
   No data are available about the effectiveness of zoster vaccine in adults who become immunosuppressed after their vaccination.”

   Here is a link to the Herpes Zoster Vaccination Information page on the CDC website where this information was obtained. http://www.cdc.gov/vaccines/vpd-vac/shingles/hcp-vaccination.htm#recommendations

13. **How long is the flu vaccine effective?**
The Influenza vaccine is good for 1 year. The vaccine is given each year because immunity decreases after a year and because each year’s vaccine is formulated to prevent only that year’s anticipated influenza viruses.
14. **If a patient has had GBS from a flu vaccine can they received Zostavax?**

Yes. History of Guillain-Barre Syndrome (GBS) is not a contraindication or precaution for receiving the zoster vaccine. Contraindications for receiving zoster vaccine include:

- Severe allergic reaction (e.g. anaphylaxis) after a previous dose or to a vaccine component (e.g. gelatin, neomycin)
- Known severe immunodeficiency (e.g. from hematologic and solid tumors, receipt of chemotherapy, congenital immunodeficiency, or long-term immunosuppressive therapy or patients with HIV infection who are severely immunocompromised)
- Pregnancy

The precautions for receiving zoster vaccine include:

- Moderate or severe acute illness with or without fever
- Receipt of specific antivirals (i.e. acyclovir, famciclovir, or valacyclovir) 24 hours before vaccinations; if possible, avoid use of these antiviral drugs for 14 days after vaccination

The vaccines that list GBS as a precaution are Influenza inactivated (TIV), Influenza live attenuated (LAIV), and Tetanus toxoid-containing (DTaP, DT, Tdap, Td) vaccines.


15. **I thought new recommendation says you can give pneumococcal and zostavax together now? I thought they needed to be separated by 4 weeks?**

Pneumococcal polysaccharide vaccine (PPSV23) and zoster vaccine can be administered simultaneously (on the same visit).

Here is an excerpt from the Herpes Zoster Vaccination Information page on the CDC website related to the ACIP recommendations of simultaneous administration [of zoster] with other vaccines. “Zostavax is a live virus vaccine. It can be administered concurrently with all other live and inactivated vaccines, including those routinely recommended for persons in 60 years and older age group, such as influenza and pneumococcal vaccines.

Of note, in December 2009 Merck revised the package insert for herpes zoster vaccine (HZV) to advise that HZV and 23-valent pneumococcal polysaccharide vaccine (PPSV) should not be administered concurrently. This recommendation was based on a Merck study that showed the average titer against varicella zoster virus (VZV) was lower in persons who received zoster and PPSV at the same visit compared to persons who these vaccines 4 weeks apart. However, the clinical relevance of this observation is unknown because there is no evidence to indicate that antibody titers against VZV are a measure of protection against HZ (results were additionally confounded by unexplained differences across comparison group in the baseline VZV antibody titers). In fact, a large study was subsequently conducted that showed that zoster vaccine was equally effective at preventing herpes zoster whether it was administered simultaneously with PPSV or 4 weeks earlier. Also, the safety profile of zoster vaccine is unaffected by simultaneous administration of PPSV. Consequently, to avoid introducing barriers to patients and providers who are interested in these two important vaccines, CDC has not changed its recommendation for either vaccine, and continues to recommend that HZV and PPSV be administered at the same visit if the person is eligible for both vaccines.”
Here is a link to the Herpes Zoster Vaccination Information page on the CDC website where this information was obtained.  http://www.cdc.gov/vaccines/vpd-vac/shingles/hcp-vaccination.htm#recommendations

The zoster vaccine would need to be separated from other live virus vaccines (if not administered on the same day) by 4 weeks.

16. **Where can we find info on whether our state has registries for vaccine records?**

Here is a link to the Immunization Information System (IIS), also known as vaccine registries, from the Centers for Disease Control and Prevention (CDC) website.  
http://www.cdc.gov/vaccines/programs/iis/index.html

Here is a link to find the state specific Immunization Information System (vaccine registries). http://www.cdc.gov/vaccines/programs/iis/contacts-locate-records.html

Many states have registries for children that record the childhood immunizations. Many times adult immunizations are not included on these registries.

17. **Isn't zostavax now recommended for 50 and above?**

Although Zostavax is FDA-approved for use among persons 50 years and older, the Advisory Committee on Immunization Practices (ACIP) to the Centers for Disease Control and Prevention (CDC) recommends that vaccination begins at 60 years of age.

Here is an excerpt from the Herpes Zoster Vaccination Information page on the CDC website related to the ACIP recommendations of vaccination of persons age 50 through 59 years. “In 2011, FDA expanded the age indications for Zostavax to include adults 50 through 59 years old for preventing herpes zoster. This decision was based on a large study showing that the vaccine reduced the risk of herpes zoster by approximately 70 percent.

For persons age 50 through 59 years, the risk of getting shingles and having prolonged pain after shingles is much lower than for people 60 years and older. In the past several years, there have been shortages and delays in getting Zostavax. Based on such considerations, ACIP is not issuing a recommendation for routine use of zoster vaccine in adults 50 through 59 years at this time. However, health care providers can still offer herpes zoster vaccine to patients 50 through 59 years. Health care providers may want to first consider whether the patient would have poor tolerance to herpes zoster or postherpetic neuralgia symptoms. For example, if the patient has:

- Preexisting chronic pain, severe depression, or other co-morbidities
- Intolerance to treatment medications due to hypersensitivity or interactions with other medications
- Extenuating employment-related factors

No data are available about the effectiveness of zoster vaccine in adults who become immunosuppressed after their vaccination.”

Here is a link to the Herpes Zoster Vaccination Information page on the CDC website where this information was obtained.  http://www.cdc.gov/vaccines/vpd-vac/shingles/hcp-vaccination.htm#recommendations

18. **I had a 40 year old with a prescription for Zostavax. Would there be any situations where this age range would be appropriate even though not indicated according to**
When administering vaccines to patients it is important to follow the recommendations by the Advisory Committee for Immunization Practices (ACIP) and/or FDA-approved indications. A 40 year old patient would not meet either guidelines criteria for administration of the zoster vaccine. No clinical trial data is available about the effectiveness of zoster vaccine in adults of this age.

Although Zostavax is FDA-approved for use among persons 50 years and older, the Advisory Committee on Immunization Practices (ACIP) to the Centers for Disease Control and Prevention (CDC) recommends that vaccination begins at 60 years of age.

Here is an excerpt from the Herpes Zoster Vaccination Information page on the CDC website related to the ACIP recommendations of vaccination of persons age 50 through 59 years. “In 2011, FDA expanded the age indications for Zostavax to include adults 50 through 59 years old for preventing herpes zoster. This decision was based on a large study showing that the vaccine reduced the risk of herpes zoster by approximately 70 percent.

For persons age 50 through 59 years, the risk of getting shingles and having prolonged pain after shingles is much lower than for people 60 years and older. In the past several years, there have been shortages and delays in getting Zostavax. Based on such considerations, ACIP is not issuing a recommendation for routine use of zoster vaccine in adults 50 through 59 years at this time. However, health care providers can still offer herpes zoster vaccine to patients 50 through 59 years. Health care providers may want to first consider whether the patient would have poor tolerance to herpes zoster or postherpetic neuralgia symptoms. For example, if the patient has:

- Preexisting chronic pain, severe depression, or other co-morbidities
- Intolerance to treatment medications due to hypersensitivity or interactions with other medications
- Extenuating employment-related factors

No data are available about the effectiveness of zoster vaccine in adults who become immunosuppressed after their vaccination.”

Here is a link to the Herpes Zoster Vaccination Information page on the CDC website where this information was obtained. http://www.cdc.gov/vaccines/vpd-vac/shingles/hcp-vaccination.htm#recommendations

19. Would you recommend giving Zostavax to 95 year old since live virus?

Age is not a contraindication or precaution for receiving the zoster vaccine. As long as the patient meets the ACIP recommendations for vaccination and does not have any contraindications and/or precautions for receiving the vaccine, it would be appropriate to immunize.

Contraindications for receiving zoster vaccine include:

- Severe allergic reaction (e.g. anaphylaxis) after a previous dose or to a vaccine component (e.g. gelatin, neomycin)
- Known severe immunodeficiency (e.g. from hematologic and solid tumors, receipt of chemotherapy, congenital immunodeficiency, or long-term immunosuppressive therapy or patients with HIV infection who are severely immunocompromised)
- Pregnancy
Precautions for receiving zoster vaccine include:

- Moderate or severe acute illness with or without fever
- Receipt of specific antivirals (i.e. acyclovir, famciclovir, or valacyclovir) 24 hours before vaccinations; if possible, avoid use of these antiviral drugs for 14 days after vaccination

20. Pneumovax and Zostavax - can they be administered the same day or do they have to be separated by 4 weeks?

Pneumococcal polysaccharide vaccine (PPSV23) and zoster vaccine can be administered simultaneously (on the same visit).

Here is an excerpt from the Herpes Zoster Vaccination Information page on the CDC website related to the ACIP recommendations of simultaneous administration [of zoster] with other vaccines. “Zostavax is a live virus vaccine. It can be administered concurrently with all other live and inactivated vaccines, including those routinely recommended for person in 60 years and older age group, such as influenza and pneumococcal vaccines.

Of note, in December 2009 Merck revised the package insert for herpes zoster vaccine (HZV) to advise that HZV and 23-valent pneumococcal polysaccharide vaccine (PPSV) should not be administered concurrently. This recommendation was based on a Merck study that showed the average titer against varicella zoster virus (VZV) was lower in persons who received zoster and PPSV at the same visit compared to person who these vaccines 4 weeks apart. However, the clinical relevance of this observation is unknown because there is no evidence to indicate that antibody titers against VZV are a measure of protection against HZ (results were additionally confounded by unexplained differences across comparison group in the baseline VZV antibody titers). In fact, a large study was subsequently conducted that showed that zoster vaccine was equally effective at preventing herpes zoster whether it was administered simultaneously with PPSV or 4 weeks earlier. Also, the safety profile of zoster vaccine is unaffected by simultaneous administration of PPSV. Consequently, to avoid introducing barriers to patients and providers who are interested in these two important vaccines, CDC has not changed its recommendation for either vaccine, and continues to recommend that HZV and PPSV be administered at the same visit if the person is eligible for both vaccines.”

Here is a link to the Herpes Zoster Vaccination Information page on the CDC website where this information was obtained. [http://www.cdc.gov/vaccines/vpd-vac/shingles/hcp-vaccination.htm#recommendations](http://www.cdc.gov/vaccines/vpd-vac/shingles/hcp-vaccination.htm#recommendations)

The zoster vaccine would need to be separated from other live virus vaccines (if not administered on the same day) by 4 weeks.

21. What again is the reason for giving children 2 doses if they did not get 2 or more doses of seasonal vaccine since July 2010?

Children 6 months to 8 years who are receiving the influenza vaccine for the first time will need two doses. Also, children who have not received two doses of influenza vaccine since July 2010 will need two doses. The 2010-2011 and 2011-2012 influenza vaccines contained the same 3 strains. If a child received one vaccine each year, because the strains were the same, it is the same as receiving two doses in the same year.
The first does “primes” the immune system; the second dose provides immune protection. Children who only get one dose but need two doses can have reduced or no protection from a single dose of influenza vaccine.

Here is a link to Children, the Flu, and the Flu Vaccine information page on the CDC website where this information was obtained.  http://www.cdc.gov/flu/protect/children.htm

22. **What precautions do we take for people with latex allergy if we stock Fluzone?**

   Per the ACIP General Recommendations on Immunization in 2011, if a person reports a severe (anaphylactic) allergy to latex, vaccines supplied in vials or syringes that contain natural rubber should not be administered unless the benefit of vaccination outweighs the risk for a potential allergic reaction. In these cases, providers should be prepared to treat patients who are having an allergic reaction. (I would recommend referral to a physician with expertise in management of allergic conditions for further evaluation). For latex allergies other than anaphylactic allergies (e.g. a history of contact allergy to latex gloves), vaccines supplied in vials or syringes that contain dry natural rubber or rubber latex may be administered.

   The following table lists the current Influenza vaccines and whether or not they contain latex. Always double check the package insert.

<table>
<thead>
<tr>
<th>Influenza Vaccine</th>
<th>Latex?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluvarix</td>
<td>YES – syringe tip cap</td>
</tr>
<tr>
<td>Fluvin</td>
<td>YES – syringe tip cap</td>
</tr>
<tr>
<td>Fluzone</td>
<td>YES – syringe tip cap</td>
</tr>
<tr>
<td>Fluzone High-Dose</td>
<td>YES – syringe tip cap</td>
</tr>
<tr>
<td>Fluzone Intradermal</td>
<td>NO</td>
</tr>
<tr>
<td>FluLaval</td>
<td>NO</td>
</tr>
<tr>
<td>Afluria</td>
<td>NO</td>
</tr>
<tr>
<td>Agriflu</td>
<td>YES – syringe tip cap</td>
</tr>
<tr>
<td>FluMist</td>
<td>NO</td>
</tr>
</tbody>
</table>

   Here is a link to Pink Book appendix titled Latex in Vaccine Packaging where this information was obtained. http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/latex-table.pdf

23. **I love the idea of Fluzone ID. How much more expensive is it? Do you think insurances would cover it?**

   Pricing for vaccines depends on the supplier used to purchase vaccines as well as the quantity of doses purchased (the more doses purchased price breaks offered by the supplier can reduce the cost). As a general rule I have heard that Fluzone Intradermal costs about $2 more than the “regular” influenza vaccine. Another important factor to consider is what rate insurance companies reimburse pharmacists for Fluzone Intradermal.

   Individual insurance companies will have to determine if they will cover Fluzone Intradermal. So coverage will vary from one plan to the next. Many times vaccines are covered under medical and not prescription insurance. With more pharmacists providing vaccines, this is starting to change.
24. **If using gloves, do you use new pair of gloves for each patient?**
   Yes, new gloves should be worn for each patient. The hands should also be washed with soap and water or at a minimum hand sanitizer between each patient as well (with or without use of gloves).

25. **Does the Tdap have to be repeated every 10 years like the Td?**
   At this point, patients only need 1 Tdap dose during their lifetime. Tdap can be used in place of one dose of Td.

   Taken from the footnotes of the Recommended Adult Immunization Schedule 2012, “Administer a one-time dose of Tdap to adults younger than age 65 years who have not received Tdap previously or for whom vaccine status is unknown to replace one of the 10-year Td boosters.”
   “Tdap can be administered regardless of interval since the most recent tetanus or diphtheria-containing vaccine.”
   “Adults 65 years and older may receive Tdap.”

26. **When would the LAIV be preferred over the TIV?**
   The ACIP does not have a recommendation for when LAIV would be preferred over TIV. The recommendation is that all persons over 6 months of age, without contraindications or precautions to vaccination, receive an annual influenza vaccine. Preference would be related to patient and pharmacist factors.

   LAIV is a live attenuated vaccine and is approved for healthy, nonpregnant persons 2 through 49 years of age. It is a nasal spray and does not have a needle (for patients and pharmacists who are needle-averse). May cost a little more and this could reduce profits for pharmacies depending on reimbursement rates.

   TIV is an inactivated vaccine and is approved for all persons 6 months of age and older (depending on vaccine brand). It can be administered to healthy patients, patients with chronic conditions, immunocompromised patients, and those who are pregnant. It does have a needle, but is available in the intradermal injection system (small needle) for needle-averse patients and pharmacists. It is also available in a High-dose version for patients over 65 years of age.

27. **If a person is allergic to tetanus is there a pertussis alone available?**
   No, not at this time. The only products available to provide protection against pertussis also contain tetanus and diphtheria as well. (DTaP – for children, Tdap – for adults)

28. **What is the length of coverage for the influenza? is it still 9 months from injection or 12 months**
   The Influenza vaccine is good for 1 year. The vaccine is given each year because immunity decreases after a year and because each year’s vaccine is formulated to prevent only that year’s anticipated influenza viruses.

29. **Regarding Tdap, if a patient received a Tdap between the age of 11-18, do they need to get another one after turning 19-64 in place of one Td? Or if they got a Tdap after age 11 they don’t need another one until 65 years?**
   At this point, patients only need 1 Tdap dose during their lifetime. The ACIP recommends giving the Tdap dose between 11 and 12 years of age for all adolescents. To catch patients who did not receive the dose between 11 and 12 years of age, the ACIP recommends all
adults receive a one-time dose of Tdap. If the person received a dose of Tdap after age 11 they would not need another dose in their lifetime (even after 65 years of age).

Taken from the footnotes of the Recommended Immunization Schedule for Persons Aged 7 through 16 years and the Recommended Adult Immunization Schedule 2012, “Persons aged 11 through 18 years who have not received Tdap vaccine should receive a dose followed by tetanus and diphtheria toxoids (Td) booster doses every 10 years thereafter.” “Administer a one-time dose of Tdap to adults younger than age 65 years who have not received Tdap previously or for whom vaccine status is unknown to replace one of the 10-year Td boosters.” “Tdap can be administered regardless of interval since the most recent tetanus or diphtheria-containing vaccine.” “Adults 65 years and older may receive Tdap.”

30. With the smaller dose of antigen in the Fluzone ID, is there a difference in level of protection or time from injection until full immunity is achieved?  
In adults 18-64 years of age, the intradermal vaccine has shown to provide an immune response similar to the regular influenza shot that is given in the muscle.

Here is a link to the Intradermal Influenza (flu) Questions and Answers information page on the CDC website where this information was obtained.  
http://www.cdc.gov/flu/protect/vaccine/qa_intradermal-vaccine.htm

31. Where can we find the influenza algorithm for egg allergy?  
The Influenza egg allergy algorithm can be found in the Morbidity and Mortality Weekly Report article titled “Prevention and Control of Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices (ACIP), 2011”. The citation is: MMWR, August 26, 2011;60(33):1128-1132.

Here is a link to the MMWR article.  http://www.cdc.gov/mmwr/pdf/wk/mm6033.pdf. Another egg allergy algorithm can be found on the Immunization Action Coalition website at  
http://aapredbook.aappublications.org/site/flu/fig5.pdf

32. What type of reactions need to be reported to VAERS?  
The VAERS program encourages reporting of any adverse event that occurs after the administration of any vaccine licensed in the United States. Adverse events should be reported even if it is not sure whether a vaccine caused them. The National Child Vaccine Injury Act (NCVIA) requires health care providers to report:

- Any adverse event listed by the vaccine manufacturer as a contraindication to further doses of the vaccine
- Any adverse event listed in the VAERS Table of Reportable Events Following Vaccination that occurs within the specified time period after vaccination.

Here is a link to the VAERS Table of Reportable Events Following Vaccination.  
http://vaers.hhs.gov/resources/VAERS_Table_of_Reportable_Events_Following_Vaccinatio
n.pdf

Here is a link to the VAERS Frequently Asked Questions website.  
http://vaers.hhs.gov/about/faqs
33. Should all patients 65 years or older receive high dose vaccine? How do you determine when to use high dose vaccine?

At this time neither the CDC nor the Advisory Committee on Immunization Practices (ACIP) expresses a preference of one influenza vaccine over another. Adults aged 65 years and older can receive the standard dose TIV or the high-dose TIV (Fluzone High-Dose).

Data from clinical trials comparing Fluzone to Fluzone High-Dose among persons aged 65 years or older indicate that a stronger immune response (i.e. higher antibody levels) occurs after vaccination with Fluzone High-Dose. Whether or not the improved immune response leads to greater protection against influenza disease after vaccination is not yet known. An ongoing study designed to determine the effectiveness of Fluzone High-Dose in preventing illness from influenza compare to Fluzone is expected to be completed in 2014-2015.

It makes sense that the higher dose of antigen in the High-Dose vaccine should give older patients a better immune response and therefore better protection against influenza. At this point, since the CDC and ACIP do not have specific recommendations, the choice is determined by patient and provider preference.

Here is a link to the Fluzone High-Dose Seasonal Influenza Vaccine Questions and Answers information page on the CDC website where this information was obtained.

http://www.cdc.gov/flu/protect/vaccine/qa_fluzone.htm

34. Is the quadrivalent intranasal flu vaccine more efficacious than the TIV?

The clinical trials that were completed for the approval of FluMist Quadivalent were done between the 3 strain FluMist formulation and the 4 strain FlutMist Quadivalent formulation. At this point, I believe no studies have been done which compare the efficacy of FluMist Quadivalent to any TIV vaccine. We will have to see if the ACIP updates any recommendations related to Influenza vaccination at upcoming meetings.

Here is a link to the FDA FluMist Quadrivalent approval website.

http://www.fda.gov/BiologicsBloodVaccines/Vaccines/ApprovedProducts/ucm293952.htm

35. Should a child get LAIV if he/she has a parent who is asthmatic?

Family history of asthma is not a contraindication or precaution for receiving the live attenuated Influenza vaccine. As long as the patient meets the ACIP recommendations for vaccination and does not have any contraindications and/or precautions for receiving the vaccine, it would be appropriate to immunize. If in doubt, it would be appropriate to administer TIV if the patient does not have any contraindications or precautions to that vaccine.

Contraindications for receiving live attenuated Influenza vaccine (LAIV) include:

- Severe allergic reaction (e.g. anaphylaxis) after a previous dose or to a vaccine component (e.g. eggs, gentamicin, gelatin, arginine), including egg protein
- Possible reactive airway disease in a child age 2 through 4 years (e.g. history of recurrent wheezing or a recent wheezing episode)
- Immune suppression
- Certain chronic medication conditions such as asthma, diabetes, heart or kidney disease
- Pregnancy

Precautions for receiving live attenuated Influenza vaccine (LAIV) include:
• Moderate or severe acute illness with or without fever
• History of Guillain-Barre Syndrome (GBS) within 6 weeks of previous influenza vaccine
• Receipt of specific antivirals (i.e. amantadine, rimantadine, zanamivir, or oseltamivir) 48 hours before vaccination; if possible, avoid use of these antiviral drugs for 14 days after vaccination

36. Explain pros/cons/difference with high dose influenza vaccine.
Fluzone High-Dose is comprised of 3 influenza strains most likely to cause illness for that particular influenza season, to protect people from influenza. The High-Dose uses the same 3 strains that are included in the standard Fluzone vaccine. The Fluzone High-Dose vaccine contains 4 times the amount of antigen contained in the regular influenza shot. The additional antigen is intended to create a stronger immune response in the person getting the vaccine. As we age our immune defenses become weaker, this places older adults at greater risk of severe illness from influenza.

The following table is a comparison of Products (Fluzone versus Fluzone High-Dose).

<table>
<thead>
<tr>
<th></th>
<th>Fluzone (standard)</th>
<th>Fluzone High-Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indication</td>
<td>6 months of age and older</td>
<td>65 years of age and older</td>
</tr>
<tr>
<td>Amount of antigen</td>
<td>15 mcg HA/strain</td>
<td>60 mcg HA/strain</td>
</tr>
<tr>
<td></td>
<td>45 mcg total/dose</td>
<td>180 mcg total/dose</td>
</tr>
<tr>
<td>Volume</td>
<td>0.5 mL/dose</td>
<td>0.5 mL/dose</td>
</tr>
<tr>
<td>Presentations</td>
<td>Single-dose preservative-free prefilled syringes and vials, multi-dose vials</td>
<td>Single-dose preservative-free prefilled syringes</td>
</tr>
<tr>
<td>Needle</td>
<td>1-inch, 25-guage typically used</td>
<td>1-inch, 25-guage typically used</td>
</tr>
</tbody>
</table>

At this time neither the CDC nor the Advisory Committee on Immunization Practices (ACIP) expresses a preference of one influenza vaccine over another. Adults aged 65 years and older can receive the standard dose TIV or the high-dose TIV (Fluzone High-Dose).

Data from clinical trials comparing Fluzone to Fluzone High-Dose among persons aged 65 years or older indicate that a stronger immune response (i.e. higher antibody levels) occurs after vaccination with Fluzone High-Dose. Whether or not the improved immune response leads to greater protection against influenza disease after vaccination is not yet known. An ongoing study designed to determine the effectiveness of Fluzone High-Dose in preventing illness from influenza compare to Fluzone is expected to be completed in 2014-2015.

It makes sense that the higher dose of antigen in the High-Dose vaccine should give older patients a better immune response and therefore better protection against influenza. At this point, since the CDC and ACIP do not have specific recommendations, the choice is determined by patient and provider preference.

Here is a link to the Fluzone High-Dose Seasonal Influenza Vaccine Questions and Answers information page on the CDC website where this information was obtained.
http://www.cdc.gov/flu/protect/vaccine/qa_fluzone.htm

37. Please explain PCV13 Dosing Schedule slide--PPSV23 naive vs previously vaccinated.
PCV13 is FDA-approved for administration to adult patients 50 years and older. At this time the ACIP is not recommending routine use of PCV13 in adults age 50 years and older unless they are considered an immunocompromised patient which includes:

- Congenital or acquired immunodeficiencies
- HIV
- Chronic renal failure or nephrotic syndrome
- Cancer
- Longer-term treatment with immunosuppressive drugs
- Solid organ transplants
- Will also include those with CSF leaks and cochlear implants

If this criterion is met then the vaccine may be given on the following dosing schedule:

PPSV23 naïve patients –
- Give PCV13 – wait 8 weeks – give 1st dose of PPSV23 – wait at least 5 years – give 2nd dose of PPSV23

Previously vaccinated with PPSV23 patients –
- Already received 1st dose of PPSV23 – wait at least 1 year – give one dose PCV13 – wait at least 8 weeks – give 2nd goes of PPSV23
- Already received 1st dose of PPSV23 – wait at least 5 years – give 2nd dose of PPSV23 – wait at least 1 year – give one dose of PCV13

The general rule is to give PCV13 at least 1 year after PPSV23 and to give PPSV23 at least 8 weeks after PCV13.

38. Is the ID covered by Medicare Part B?
   Yes, the Fluzone Intradermal vaccine is covered by Medicare Part B. Keep in mind that many of your Medicare Part B patients will be 65 years or older and would qualify for the Fluzone High-Dose vaccine.


39. When is peak immunity after immunization of the flu vaccine?
   Influenza vaccines cause antibodies to develop in the body about two weeks after vaccination. This means the vaccines begins working approximately two weeks after injection and lasts for about 1 year.

40. Is there a pertussis vaccine for small children under 10 years? What are the recommendations?
   Children 6 weeks to 7 years of age should receive and complete the DTaP 5-dose series to provide protection from diphtheria, tetanus, and pertussis illnesses. The DTaP doses are administered at 2 months, 4 months, 6 months, 15-18 months, and 4-6 years.