ACUTE CARE
INPATIENT IMMUNIZATIONS

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Influenza Immunization Obstacles

**PERCEIVED**
- Too sick to be vaccinated at this time.
- Side effects, e.g., fever, can lead to unnecessary extra testing and treatment for infections.

**REAL**
- Inadequate prior information for vaccine receipt this season.
- Lack of ownership of who orders the vaccine.
- Does the vaccine work?
- Not a priority during acute hospitalization.
- Administration at time of discharge leads to a lot of missed opportunities.

**DAILY INTERDISCIPLINARY ROUNDS**
- Comprehensive group that addresses the patient care plan for the day
- Attending Physician, Primary Care Nurse, Charge Nurse, Respiratory Therapy, Pharmacy, Rehabilitation Services, Case Manager, Social Services, Dietary, Palliative Care, Chaplain, Medical Director of Quality
- Patient Presentation
- Nursing Check List
  - This includes immunizations

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IMMUNIZATIONS FOR PATIENTS WITH ASPLENIA

THE PROBLEM WITH ASPLENIA

Complex process for patients, physicians, and pharmacists
Too many vaccines and doses
Complex timing
EPIC software doesn't provide enough tools to make this work
INPATIENT
Splenectomy
ORDER SET

- Address the unreliable patient
- Address the partially immunized patient
- Customize discharge instructions
A reminder appears to suggest the splenectomy immunization order set when admitting a patient.

Lots of categories and lots of clicks.
Not user friendly

Recommendations for planned splenectomy or functional asplenia (sickle cell disease)

1. Administer Prevnar 13 (PCV13) if the patient has not been vaccinated previously. Prevnar should be given either a minimum of 2 weeks before surgery or 2 weeks after surgery.
2. Administer Pneumovax 23 (PPSV23) if the patient has not been vaccinated previously.
3. Administer Pneumovax 23 as a minimum of 6 weeks after Prevnar 13.
4. Administer a single dose of Hib conjugate vaccine if the patient has not been vaccinated previously.
5. Administer a single dose of polysaccharide meningococcal vaccine (MenC) if the patient has not been previously vaccinated.
6. Administer influenza vaccine annnually.

Recommendations for emergent splenectomy

1. Administer Prevnar 13 (PCV13) if the patient has not been vaccinated previously.
2. For patients with relative medical follow-up, give Prevnar 13 (PCV13) 2 weeks after hospital discharge.
3. For patients with relative medical follow-up, give Prevnar 13 (PCV13) prior to discharge.
4. Administer Pneumovax 23 (PPSV23) if the patient has not been vaccinated previously.
5. Administer Pneumovax 23 as a minimum of 6 weeks after Prevnar 13 is given.
6. Repeat the Pneumovax 23 dose in 5 years.
7. If the patient has been previously vaccinated with Prevnar 13 (PCV13) more than 8 weeks ago then:
   a. For patients with relative medical follow-up, give Prevnar 13 (PCV13) 2 weeks after hospital discharge. Repeat Pneumovax 23 in 5 years.
   b. For patients with relative medical follow-up, give Prevnar 23 (PPSV23) prior to discharge. Repeat Pneumovax 23 in 5 years.
7. Repeat the Pneumovax 23 in 5 years.
8. Administer a single dose of Hib conjugate vaccine if the patient has not been vaccinated previously.
9. Administer a single dose of polysaccharide meningococcal vaccine (MenC) if the patient has not been vaccinated previously.
10. Administer MenC as a minimum of 6 weeks after Prevnar 13 (PCV13).
11. For patients with relative medical follow-up, schedule the first doses of Menactra and Bexsero(Netalig) 6 weeks after the Prevnar 13 (PCV13) is scheduled to be given.
12. Give the second dose of Menactra and Bexsero(Netalig) 6 weeks after the first dose.
13. Repeat Menactra and Bexsero(Netalig) vaccination every 5 years.

- 2013IDSA Clinical Practice Guidelines for Vaccination of the Immunocompromised Host
- Splenectomy Immunizations Flowchart

Pneumococcal Immunizations: Choose the one best scenario

- No prior pneumococcal vaccinations
- Prevnar 13 previously given > 8 weeks ago
- Pneumovax 23 previously given

Meningococcal Polyvalent Immunization: Choose the best scenario

- No prior meningococcal vaccination.

- Menactra vaccine previously given:
  1. Immunizations should start 7 weeks after splenectomy if reliable medical follow-up is anticipated or before discharge if there may be unreliable medical follow-up.
  2. Administer a 2 dose series of Meningococcal B vaccine (Bexsero/Menalig) 8 weeks apart if the patient has not been vaccinated previously.
  3. Bexsero/Menalig should be given 2 weeks following Prevnar 13.
  4. Repeat Bexsero/Menalig vaccination every 5 years.
  5. Repeat the Menactra vaccination every 5 years.

- meningococcal Vac B (Bexsero/Menalig): If Prevnar 13 previously given greater than 8 weeks ago.

Other Immunizations

- Haemophilus and influenza
If at first you don’t succeed…”

reminder came up when opening orders sets

LAST TRY

Another reminder at discharge
TAKE HOME LESSONS AND PEARLS

- A nurse driven protocol for influenza immunization works.
- Calendar Day #1, attempt to obtain immunization history.
- Calendar Day #2, complete history and administer immunization.
- If not completed on that day, keep on daily report until completed.
- Include physicians in discussion on every patient to engage everyone in the process.
- We have not seen administration during hospitalization result in unexpected complications or resource utilization.

TAKE HOME LESSONS AND PEARLS

- A successful asplenia immunization program will be difficult to complete without:
  - Readily available immunization records in a common data base.
  - Computer software that downloads the information and makes recommendations based on age, diagnoses, previous immunizations and allergies. We need EPIC and other software program developers to assist with this major obstacle.
  - More combination vaccinations.
  - Ideally microneedle patch immunizations or some other painless technology.
  - Simpler immunization algorithms.