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Improving Immunization Rates Among Oncology Patients

Vaccine Recommendations for Patients with Solid Tumors

Adapted from a presentation, Vaccination for the Cancer Patient: Benefits and Controversies, by Mini Kamboj, M.D. on June 26, 2012

General Recommendations

- Inactivated vaccines can be safely given to persons undergoing chemotherapy for solid tumors
- Vaccine effectiveness may be lower in patients with cancer compared with healthy individuals, but vaccination can still reduce morbidity, mortality, and prevent treatment delays
- Live vaccines should **not** be administered to persons undergoing chemotherapy; either immediately before, during, or immediately after
- Emphasize vaccination of household contacts to provide indirect protection for patients with cancer

Influenza

- Annual influenza vaccine is recommended for all oncology patients
- Cancer patients should only receive the trivalent inactivated influenza vaccine
- Live attenuated influenza vaccine is contraindicated in immunocompromised patients who require protective isolation
- Timing of influenza vaccination
 - October-November, but offer through the influenza season and as long as community activity lasts
 - Timing in relation to chemotherapy cycles: Give influenza vaccine ≥ 2 weeks before chemotherapy or in between cycles of chemotherapy
- Emphasize flu vaccination of household contacts of patients with cancer

Pneumococcal Disease

- Pneumococcal polysaccharide vaccine (PPSV23) [recommendations are likely to change based on June 2012 Advisory Committee on Immunization Practices (ACIP) meeting-see below]
 - Cancer patients with solid tumors who have not previously received PPSV23 should be vaccinated
 - Pneumococcal vaccine should be given 4–6 weeks before starting chemotherapy or 3 months after chemotherapy completion
 - One time revaccination after 5 years (patients ≥ 65 years at the time of their first dose of PPSV23 do not require revaccination)
- Pneumococcal conjugate vaccine (PCV13)
 - At the June 2012 ACIP Meeting, recommendations were provided for the use of PCV13 in immunocompromised adults. [PCV13 is currently recommended for use in children (6 weeks through 5 years) and is licensed for use in adults ≥ 50 years of age. (ACIP has not yet recommended PCV13 for routine vaccination of older adults)
 - The ACIP recommendations for immunocompromised patients have not yet been published, but will be forthcoming.
 - > Provisional recommendations from ACIP extend indications of PCV13 to:
 - Adults ≥ 19 years with immunocompromising conditions who have not previously received PPSV23 or PCV13 should receive a single dose of PCV13 followed by a dose of PPSV23 at least 8 weeks later
 - Adults ≥ 19 years with immunocompromising conditions who have previously received one or more doses of PPSV23, should receive a single dose of PCV13 at least >1 year after the last dose of PPSV23 was received
 - Recommendations for second dose of PPSV23 remain unchanged (≥ 5 years after the first dose in adults aged 19–64 with immunocompromising conditions and a single dose after age 65 years for all who received first dose before age 65 or later if at least 5 years have passed between the previous dose.)

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Pertussis (and tetanus)

- The ACIP recommends a one-time Tdap vaccine for all adults regardless of interval since the last Td dose
- Following receipt of Tdap, boost with Td every 10 years

Zoster (Shingles)

- Zoster vaccine is recommended for immunocompetent adults ≥ 60 years
- Zoster vaccine is a live attenuated vaccine and is contraindicated in patients undergoing chemotherapy
- For patients starting chemotherapy for <u>solid tumors</u>, zoster vaccine may be given at least one month (prefer 6 weeks) before initiation of treatment OR at least 3 months after completion of radiation and chemotherapy and should be given only after consultation with ID physician
- Zoster vaccine is not given at City of Hope

Use of Live Vaccines for Household Contacts of Cancer Patients

- Varicella
 - Varicella vaccine may be administered to household contacts of patients with solid tumors
 - Vaccine recipients in whom a vaccine-related rash occurs should cover the rash until scabs form and avoid contact with susceptible persons

Influenza

- Live attenuated Influenza vaccine (LAIV) may be given to household contacts of patients with solid tumors, but the trivalent inactivated vaccine is preferred
- Health care workers who have contact with severely immunocompromised patients and who received LAIV should avoid contact for 7 days
- Health care workers and household contacts caring for immunocompromised patients who require protective isolation should not receive LAIV

Measles, Mumps, Rubella

- MMR vaccine may be administered to household contacts of patients with solid tumors

Rotavirus

- Rotavirus vaccines (RotaTeq/RV5 and Rotarix/RV1) may be administered to household contacts of patients with solid tumors
- Patients with solid tumors should avoid changing the diapers of children who received a rotavirus vaccine for either 2 or 4 weeks for RotaTeq/RV5 and Rotarix/RV1, respectively

Smallpox

- Vaccinia vaccine is contraindicated in household contacts of immunosuppressed patients