01.45 - Pertussis Infection Control Program

Purpose

To describe the Pertussis Infection Control Program at UTMB

Audience

All employees of UTMB hospitals, clinics, outpatient specialty care and surgical center, contract workers, volunteers and students.

Policy

It is the intent of this program to prevent the transmission of pertussis from patient to patient and from patient to healthcare workers (HCWs) and students or visa versa. All HCWs who have patient contact or work in patient care areas must receive a one-time dose of a tetanus toxoid, reduced diphtheria toxoid and acellular pertussis vaccine, adsorbed (Tdap). It shall be the responsibility of the Employee Health and Student Health services or respective management groups to assure that all HCWs and students who have patient contact have received one dose of Tdap.

HCW and Student Vaccination Status

1. At the time of the post-hire employee health or student health evaluation, a history of receipt of one dose of Tdap should be elicited.
2. Current HCWs and students will be notified of the need to receive one dose of Tdap vaccine as soon as possible.
3. Vaccination records should be checked on every visit to the Employee Health or Student Health clinics and required immunizations given as indicated.
4. Those with no history of having received a dose of Tdap should be offered a dose of this vaccine if they have none of the contraindications below.
    - A history of a serious allergic reaction (i.e., anaphylaxis) to any component of the vaccine
    - A history of encephalopathy (e.g., coma or prolonged seizures) not attributable to an identifiable cause within 7 days of administration of a vaccine with pertussis components
    - Persons with the latter contraindications should receive Td instead of Tdap.
5. A booster dose of Tdap (preferred over Td) vaccinee is indicated every 10 years.
6. Vaccine declination: Those who have no contraindications to vaccination and have refused vaccination, and who are later exposed to pertussis in the course of their patient care duties, will immediately be offered antimicrobial prophylaxis (see antimicrobial prophylaxis below) and whether or not they start prophylaxis. (See section ‘Management of Exposed Healthcare Workers’).

Definition of Exposure to pertussis

An unprotected exposure without a face mask is said to occur as in the circumstances below.

- Face-to-face exposure within 3 feet of a symptomatic person.
- Direct contact with respiratory, oral or nasal secretions from a symptomatic person

Management of Exposed HCWs and Students

Prophylaxis will be offered to patients who meet the definition of exposure as above.

1. Decisions on whether to give post-exposure prophylaxis (PEP) or initiate 'symptom monitoring' should take into consideration the patient population served by the HCW/student and the likely frequency of exposures.
2. Exposure in healthcare workplace:
    - PEP with an antibiotic (see item 4 below) will be preferred over symptom-watch for (i) those working in a neonatal intensive care unit, or (ii) those who have never received a pertussis vaccine.
    - Symptom-watch for 21 days after an exposure will be preferred for those providing clinical care in clinics, including urgent care and emergency departments, where repeated exposures are likely. Masking is not required if asymptomatic during symptom-watch.
    - If symptom-watch is initiated, HCW should notify Employee Health/Student Health whenever symptoms of cough appear during 21 days of exposure, immediate PEP with an antibiotic should be started, and should stay away from work for 5 days after starting antibiotic unless a nasopharyngeal test excludes pertussis.
3. Exposure outside of workplace:
    - For household exposure of HCWs to pertussis, PEP will be preferred.
    - For non-household, community exposure to pertussis, symptom-watch will be preferred.
4. Prophylaxis
    - Azithromycin 500 mg in a single dose on day 1, then 250 mg per day on days 2-5.
    - Trimethoprim/sulfamethoxazole (TMP 320 mg/SMZ 1600 mg) per day in 2 divided doses for 14 days may be substituted for HCWs who are allergic to macrolides.
    - Pregnant HCWs may be prophylaxed only with azithromycin
5. Treatment regimen is the same as prophylaxis.
6. Avoid prescribing azithromycin to those who have a history of heart

disease, including a history of a prolonged QT interval or a family history of sudden death in a young adult first degree relative.

Antimicrobial Prophylaxis for Patients

- Antimicrobial prophylaxis for susceptible patients exposed to pertussis in the hospital or clinics
  - Patients < 1 month of age azithromycin 10 mg/kg per day in a single dose for 5 days (only limited safety data available)*
  - Patients 1 – 5 months of age 10 mg/kg per day in a single dose for 5 days*
  - Infants (aged ≥ 6 months) and children 10 mg/kg in a single dose on day 1, then 5 mg/kg per day (maximum: 500 mg) on days 2 – 5*
  - Adults 500 mg in a single dose on day 1, then 250 mg per day on days 2 – 5.
  - Pregnant patients may be prophylaxed only with azithromycin.
  - Avoid prescribing azithromycin to patients or healthcare workers who have a history of heart disease, including a history of a prolonged QT interval or a family history of sudden death in a young adult first degree relative.
- Treatment regimen is the same as prophylaxis.

Isolation for Pertussis

- Patients with suspected or documented pertussis shall be placed on Droplet Precautions.
- Patients shall remain on Droplet Precautions until 5 days after they have been placed on effective therapy. Post-treatment cough may continue but this is not considered contagious.

References

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