

This section of the Journal is designed to present clinical problems which focus on patient management, problem-solving, and other elements integral to family medicine. The intent of this section is aimed more at teaching and learning than self-assessment as an evaluation or scoring device. Reinforcement of major teaching points is therefore included through the further discussion and supplemental references which appear on the following pages. Critical comments relating to these self-assessment materials are invited and should be submitted as Letters to the Editor.

Self-Assessment in Family Practice

These materials have been prepared by members of the Self-Assessment Panel of *The Journal of Family Practice*. Membership: R. Neil Chisholm, MD, Chairman (University of Colorado, Denver), B. Lewis Barnett, MD (Medical University of South Carolina, Charleston), Leland B. Blanchard, MD (San Jose, California), Paul C. Brucker, MD (Thomas Jefferson University Hospital, Philadelphia, Pennsylvania), Laurel G. Case, MD (University of Oregon Medical School, Portland), Silas W. Grant, MD (University of Alabama, Huntsville), Ian R. Hill, MD (Plains Health Centre, Regina, Saskatchewan), Kenneth F. Kessell, MD (MacNeal Memorial Hospital, Berwyn, Illinois), John A. Lincoln, MD (University of Washington, Seattle), James G. Price, MD (Brush, Colorado), Richard C. Reynolds, MD (University of Florida, Gainesville), Gabriel Smilkstein, MD (University of California, Davis), William L. Stewart, MD (Southern Illinois University, Springfield).

Question

A nine-month-old female infant is brought into the clinic by her young mother who gives a history of having a cold herself, and thinks that the infant also has a cold. The infant has had sneezing and runny eyes for the past two days and has been treated for one week with phenylephrine hydrochloride (Neo-Synephrine) nose drops for a stuffy nose. The infant has now developed a cough. An examination of the infant shows a healthy baby girl, with all systems normal and a slight fever. The mother is reassured and is sent home. Following a phone call in which the mother says the baby's sleep has been disturbed, a cough syrup is prescribed.

One week later, the family turns up in the Emergency Room. The mother is very upset as the cough has become more violent and the baby turns blue after a spasm of coughing. This also

causes vomiting after meals. The infant has a paroxysmal cough with an inspirational whoop. Whooping cough is suspected. A complete blood count is performed which shows marked lymphocytosis, normal Hb, and platelets. The infant is admitted to an isolation unit.

1. Pertussis is communicable:
 - a. from one week before to three weeks after onset of paroxysms
 - b. from onset of paroxysms until symptoms cease
 - c. for four weeks after onset of symptoms
2. The incubation period is:
 - a. two weeks
 - b. 21 days
 - c. seven to ten days
3. Cough becomes paroxysmal with:
 - a. one week of start of symptoms
 - b. two weeks of onset of symptoms
 - c. cough may not become paroxysmal.
4. A positive nasopharyngeal culture is most likely obtained:
 - a. before onset of symptoms
 - b. two weeks after onset of paroxysmal cough
 - c. during catarrhal stage and first two weeks of paroxysmal stage
 - d. at the end of paroxysmal stage
5. Complications which could ensue include:
 - a. pneumonia
 - b. atelectasis, bronchiectasis

- c. convulsions due to cerebral anoxia
d. hemorrhage into conjunctiva or from nose
e. a and d
f. a and b
g. all of the above
h. none of the above
6. Which of the organisms named causes true pertussis?
a. 1. *Bordetella pertussis*
2. *B. bronchisepta*
3. *B. parapertussis*
b. Can this be confirmed by direct examination of a nasopharyngeal smear?
1. Yes
2. No
7. Of the following drugs, which would be the drug of choice in true whooping cough?
a. Penicillin
b. Tetracycline
c. Erythromycin
d. Chloramphenicol
e. Ampicillin
8. What will be the benefit of administering the above drug?
a. A shortening of the clinical course of the disease
b. An elimination of pertussis organisms, thus rendering patient non-infective, but having no effect on clinical course when administered during paroxysmal phase of illness
c. A prolonging of the course of disease, but in a milder form more easily managed
9. Which other drugs (one or more) significantly alter severity and duration of pertussis?
a. Betamathasone
b. Hydrocortisone sodium succinate
c. Paracetamol
d. Oxtriphylline syrup (Choledyl)
10. Isolation should be maintained for what duration?
a. Four weeks
b. Completion of erythromycin therapy
c. One negative nasopharyngeal smear
d. Three negative nasopharyngeal smears at intervals of two to three days
11. Supportive therapy should include:
a. Quiet care areas
b. Minimum stimulation and handling
c. Careful positioning to allow drainage of secretions
d. Gentle suctioning following paroxysms
e. Supplemental oxygen during and after severe bouts of coughing
f. Small frequent feedings of thickened nutritious base
g. a, c, g
h. a, b, c, f, g
i. all of the above
j. none of the above
12. Exposed children under six years who have had primary immunization and three or four DPT injections in infancy, should now receive which therapy?
a. Pertussis hyperimmune globulin
b. Erythromycin
c. Booster DPT vaccine
d. No treatment
13. Other individuals should:
a. Be followed for infection by repeated fluorescent (FA) studies
b. Receive DPT injection
c. Receive pertussis hyperimmune globulin
14. Where the treatment in 13 above is not possible, which procedure should be followed?
a. DPT vaccination
b. Hyperimmune globulin
c. Pertussis gamma globulin
d. Erythromycin for 14 days

Answers

1. a.
2. c.
3. b.
4. b.
5. g.
6. a. 1.
b. 1. Nasopharyngeal smear stained with fluorescein-conjugated *B. pertussis* antisera utilizing fluorescent microscopy (FA studies).
7. c. Erythromycin 35/50 mg/kg day orally in 4 divided doses for 14 days
8. b.
9. a or b may be used. Betamathasone .75 mg/kg/day, or hydrocortisone sodium succinate (Solu-Cortef) intramuscularly 30 mg/kg/day for 2 days then gradually reduced, and discontinued on the seventh or eighth day.
10. d.
11. i.
12. c. 0.5 ml DPT vaccine
13. a.
14. d.

References

- 1-5. Silver HK, Kempe CH, Bruyn HB: *Pediatrics* (ed 6). Los Altos, Calif, Lange Medical Publications, 1965
6-14. Gellis SS, Kagan BM: *Current Pediatric Therapy*. Philadelphia, W.B. Saunders, 1964