Insight: Questions

Based on the articles contained in this issue, the following questions concern relevant and related issues raised by these papers. The answers are on the following pages with references, where appropriate. The questions are designed to test your knowledge of the fields covered and are intended as a contribution to your personal, continuing, occupational medicine education.

THE FOLLOWING STATEMENTS ARE EITHER TRUE OR FALSE:

1. Problem based learning:
   a. uses hypothetical rather than real cases.
   b. targets diagnosis rather than pathophysiologic mechanisms.
   c. relies on a self-directed method of learning.
   d. allows students' reports to be scrutinized and debated by peers and teachers.
   e. aims to develop skills which enable students to become lifelong learners.

2. A health service provider which plays a major role in conducting preventive health services for small- or medium-scale enterprises in Japan is a(n):
   a. occupational health organization.
   b. regional occupational health centre.
   c. municipal health centre.
   d. public clinic/hospital.
   e. private clinic/hospital.

3. A service provided to enterprises by occupational health organizations in Japan is:
   a. periodic health examinations.
   b. health examinations specific to hazardous work.
   c. Total Health Promotion Plan (THP).
   d. adult disease screening.
   e. work environment measurement.

4. In order to make their service, especially for SSEs, more efficient and effective, specialists in occupational health organizations must:
   a. cooperate with a person in charge in the enterprise.
   b. have a full knowledge of the work site and work itself.
   c. advise on occupational health activities in the enterprise.
   d. inspect occupational health activities in the enterprise.
   e. co-operate with the regional occupational health centre.

5. Magnetic fields:
   a. strengths are measured in telsas.
   b. are produced in the process of arc welding.
   c. in an occupational setting induce currents in the body which are stronger than the intrinsic current arising in the heart and brain.
   d. strengths are inversely proportional to the distance from the magnet at distances twice or more the diameter of the magnetizing core.
   e. can affect pacemaker function.
6. Absence due to low back pain:
   a. has shown little change over the past 10 years.
   b. is influenced by attitudes towards pain.
   c. remains unchanged despite psychosocial intervention.
   d. is likely to recur in workers who have previously taken more than 2 weeks absence due to back pain.
   e. is increased among workers who have negative attitudes and beliefs about back disorders.

7. Differential occupational health service (OHS), as opposed to standard OHS:
   a. provides a 'made to measure' OHS.
   b. concentrates on company characteristics.
   c. prioritizes compliance with health and safety legislation requirements.
   d. standardizes medical examinations.
   e. trains OHS professionals in skills of planning, co-operation and negotiation.

8. In the healthcare setting high level respiratory surveillance is warranted for exposure to:
   a. formaldehyde
   b. methyl methacrylate
   c. laboratory animals
   d. gluteraldehyde
   e. isocyanates

9. Alpha amylase:
   a. is a recognized cause of contact dermatitis in bakers.
   b. hypersensitivity depends on the presence of specific IgG.
   c. is produced by aspergillus.
   d. is an important allergen in patients with asthma caused by flour.
   e. is a constituent of grain dust.

10. A Lead Mobilization Test is useful to:
    a. decrease Pb body burden.
    b. establish workers' compensation.
    c. estimate the Pb body burden and the metabolically active fraction of the total Pb burden.
    d. chose the appropriate type of chelating agent (CaNa2EDTA, DMSA, BAL, etc.)
        for the possible therapeutic regimen.
    e. programme dosage and duration of chelation therapy.

11. In case of an occupational Pb poisoning with serious anemia, abdominal colic and oliguria, recommend:
    a. immediate chelation therapy with low doses of CaNa2EDTA.
    b. immediate chelation therapy with DMSA or BAL.
    c. blood transfusion.
    d. evaluation of electrolyte and fluid balance and a LMT test.
    e. immediate chelation therapy with high doses of CaNa2EDTA.

12. In the treatment of moderate Pb poisoning, it is advisable to:
    a. remove the worker from exposure.
    b. chelate with 300 mg i.m. CaNa2EDTA/day for a few days.
    c. chelate with high doses of DMSA or penicillamine.
    d. chelate with 2 g i.v. CaNa2EDTA/day for a few days.
    e. supplement with essential elements (Fe, Zn).
13. The following are recognized causes of allergic contact dermatitis:
   a. water
   b. bleach
   c. nickel
   d. hair dyes
   e. rubber gloves

14. Primary prevention of occupational skin disease involves:
   a. substitution of safer alternatives.
   b. pre-employment selection.
   c. worker education.
   d. health surveillance.
   e. relocation to alternative duties if an occupational skin disease occurs.

15. A 35-year old man presents for periodic audiometry. He has worked as a chain saw operator for the past 10 years, usually sawing for 5–8 hours per day. Ear muffs are provided. His audiogram shows a 40db loss at 4 and 6 kHz in his left ear. Hearing in the right ear is normal.
   a. A conductive hearing loss is unlikely to be the cause.
   b. Presbyacusis accounts for the findings.
   c. The finding is typical of temporary threshold shift.
   d. Recreational noise exposure may account for the finding.
   e. Referral for further investigations is usually necessary.

16. The subclinical toxicity of inorganic lead is reflected in the following:
   a. reduced motor nerve conduction velocities.
   b. reduction of zinc protoporphyrin (ZPP) concentrations.
   c. neuropsychological effects.
   d. inhibition of delta amino laevulinic dehydratase.
   e. alteration of sperm count and morphology.

17. Risk factors associated with the occurrence of spinal musculoskeletal complaints include:
   a. increasing age.
   b. increasing body mass index.
   c. female sex.
   d. increasing number of children (in females).
   e. lack of training in manual handling techniques.
   f. lack of availability of lifting aids.

18. Risk factors for the development of scrotal cancer include:
   a. metal machining.
   b. solvent refined cutting oils.
   c. coal distillation processes.
   d. ultra-violet radiation.
   e. Herpes Simplex infection.

19. Recognized health effects of mineral oils include:
   a. senile keratosis.
   b. scrotal cancer.
   c. folliculitis.
   d. acne rosacea.
   e. keratoacanthoma.
20. Primary prevention of hand–arm vibration involves:
   a. the reduction of vibration energy to the worker's hands.
   b. proper tool design.
   c. worker education.
   d. early diagnosis of hand–arm vibration.
   e. the provision of gloves.

21. Tuberculosis:
   a. All forms of tuberculosis are statutorily notifiable.
   b. Most patients with tuberculosis can be treated at home.
   c. Barrier nursing is necessary for hospitalized patients.
   d. Routine chest radiography is effective in the early detection of tuberculosis.
   e. Up to 10% of tuberculosis cases are diagnosed by contract tracing.

22. BCG vaccine:
   a. is a killed vaccine.
   b. should be administered intradermally to adults.
   c. is associated with an efficacy of greater than 70% in British children.
   d. is contraindicated in HIV-positive patients.
   e. is contraindicated in pregnancy.

23. A HEAF test:
   a. may be negative in active tuberculosis.
   b. may be negative following glandular fever.
   c. should be read within 24 hours.
   d. shows an increased response with age.
   e. Reaction is graded according to the degree of erythema.

24. The following are recognized causes of granulomata:
   a. Sarcoidosis
   b. SLE
   c. Berrylium disease
   d. Cadmium exposure
   e. Tuberculosis

25. Methyl bromide:
   a. exposure typically leads to symptoms within seconds or minutes.
   b. is a neurotoxin.
   c. enters the body mainly through the skin.
   d. is a low boiling point substance which can be used as a refrigerant.
   e. on repeated exposure can lead to dermatitis.