

## August 2012 – Immunology

CPD questionnaires must be completed online via [www.cpdjournals.co.za](http://www.cpdjournals.co.za)  
After submission you can check the answers and print your certificate.

### INNATE IMMUNITY

- 1. Which one of the following promotes up-regulation of endothelial adhesion molecules?**
  - A. Defensins and type I interferon
  - B. C3b and C3bi
  - C. Lysozyme and myeloperoxidase
  - D. IL-1beta and TNF
  - E. C-reactive protein and dectin-1.
- 2. True (A) or false (B):**  
Mannan-binding lectin promotes complement activation.
- 3. True (A) or false (B):**  
NADPH oxidase is found predominantly in neutrophils.
- 4. True (A) or false (B):**  
Innate immunity is the first line of host defence.

### PRIMARY IMMUNODEFICIENCY DISEASES

- 5. True (A) or false (B):**  
Primary T cell immune defects have a similar clinical presentation to HIV infection.
- 6. The most important medical evaluation of a patient with suspected PID is (choose one):**
  - A. Full blood count
  - B. Flow cytometry quantitation of lymphocytes
  - C. Good history and physical examination
  - D. Dried blood spot for neonatal screening
  - E. Immunoglobulin quantitation.
- 7. The most commonly reported immune defect is (choose one):**
  - A. Severe combined immune deficiency
  - B. Absent B cells
  - C. Antibody deficiencies
  - D. Phagocytic defects
  - E. Complement deficiency.
- 8. True (A) or false (B):**  
You should avoid live vaccines in patients with severe PIDs.

### ELITE CONTROLLERS: UNDERSTANDING NATURAL SUPPRESSIVE CONTROL OF HIV-1 INFECTION

- 9. True (A) or false (B):**  
Elite control of HIV-1 infection is characterised by a consistent viral load of <50 RNA copies/ml in the absence of HAART for at least 1 year.
- 10. True (A) or false (B):**  
The human leukocyte antigen (HLA) complex is the only factor of importance in elite control of HIV-1 infection.

### 11. True (A) or false (B):

Approximately 1 in 300 individuals, known as elite controllers, have the ability to naturally suppress HIV-1 replication to levels undetectable by current viral load assays (<50 RNA copies/ml).

### 12. True (A) or false (B):

The following factors may be involved in suppressive control of HIV-1 infection in Ecs: viral, intrinsic antiviral, host genetic and immune.

### BIOMARKERS AND GENES PREDICTIVE OF DISEASE PREDISPOSITION AND PROGNOSIS IN RHEUMATOID ARTHRITIS

### 13. Which one of the following classifications was conceived to assist in early detection of RA?

- A. 1987 American College of Rheumatology (ACR) classification
- B. Therapeutic Criteria of the New York Rheumatism Association 1949
- C. 2010 EULAR/ACR classification
- D. 1991 American College of Rheumatology (ACR) classification
- E. The College of American Pathologists 2012 classification.

### 14. Quantitative measurement of which one of the following combinations of biomarkers has been reported to be able to predict RA years before clinical onset?

- A. RF and ESR
- B. RF and CRP
- C. Circulating cytokines and RF
- D. Anti-CCP and circulating cytokines
- E. VEGF (vascular endothelial growth factor) and anti-Sa.

### 15. True (A) or false (B):

The du Montcel 'shared epitope' classification has been shown to correspond with anti-CCP seropositivity in the South African population.

### 16. True (A) or false (B):

Cytokines and associated receptors are not only biomarkers for novel biotherapies but can assist in diagnosis of high disease activity in RA.

### ALLERGIES IN THE WORKPLACE

### 17. Occupational allergies can affect various organ systems, leading to several different clinical syndromes including (choose one):

- A. Allergic rhinitis
- B. Protein contact dermatitis
- C. Skin cancer

- D. Urticaria
- E. A, B and D above.

**18. What measures need to be taken to counteract the increase of occupational allergies (choose one)?**

- A. Conduct risk assessment and limit exposure to suspected allergens
- B. Educate workers about occupational allergies and avoidance measures
- C. Monitor workers working in high-risk jobs through medical questionnaires and appropriate diagnostic tools
- D. All of the above
- E. None of the above.

**THE SOUTH AFRICAN BONE MARROW REGISTRY**

**19. Unrelated stem cell donors (choose one):**

- A. Can be of any age
- B. Must be HLA matched
- C. Need not be HLA matched
- D. Can receive payment
- E. Can only donate to patients in their own country.

**20. True (A) or false (B):**

The SABMR is responsible for the well-being of its own donors for post-HSC donation.