



THE COLLEGES OF MEDICINE OF SOUTH AFRICA

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Examination for the Subspeciality Certificate in Paediatric Neurology of the  
College of Paediatricians of South Africa

27 July 2017

Paper 1

(3 hours)

*All questions are to be answered. Each question to be answered in a separate book (or books if more than one is required for the one answer)*

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- 1 a) Write notes on the current use of mTor inhibitors in paediatric neurology practice. (20)
- b) Discuss Neuromodulation in paediatric neurology under the following
- i) Discuss Deep Brain Stimulation (DBS) under the following headings (10)
- a) Indications.
- b) Patient selection.
- c) Discuss anatomical site of DBS and intra-operative confirmation of correct placement.
- d) Complications.
- ii) Discuss Vagal Nerve Stimulation (VNS) under the following headings (10)
- a) Broad outline of procedure and mode of action.
- b) Indications.
- c) Efficacy.
- d) Complications.
- iii) Discuss the advantages and disadvantages of Neuromodulation, including therapies not mentioned above, as a modality of treatment and its role in a country such as South Africa. (10)
- [50]
- 2 a) You receive the following note from your pharmacy manager: "Valproate should not be prescribed to female children, female adolescents, women of childbearing potential or pregnant women unless other treatments are ineffective or not tolerated". Discuss the issues around the use of Valproate in female children and adolescents. Include
- i) The reasons for this warning.
- ii) Your approach regarding the continued use of Valproate in female children.
- iii) Your approach regarding the use of Valproate as a new agent in female children. (30)
- b) Write notes on alternating hemiplegia in childhood with reference to genetics, clinical manifestations and management. (20)
- [50]
- 3 Write short notes on the epidemiology, clinical presentation, neuroimaging and management of
- a) Craniopharyngioma. (15)
- b) Medulloblastoma. (15)
- c) Brainstem Glioma. (10)

- d) Ependymoma. (10)  
[50]
- 4 a) A 5-year-old girl presents with a sudden onset of hemiplegia affecting the right side of the face and the right arm more than the right leg. She is alert, afebrile and has no signs of meningeal irritation. Discuss your approach to this patient under the following headings
- i) Clinical assessment.
  - ii) Investigations.
  - iii) Management.
  - iv) Prognostic considerations. (25)
- b) Discuss the differential diagnosis of acute bulbo-respiratory paralysis with facial weakness following an upper respiratory tract infection in a child. (15)
- c) Discuss the management of a 7-year-old boy who presents for the first time with clinical features compatible with myasthenia gravis, in a respiratory crisis requiring intubation. (10)  
[50]