

**Headache Medicine
Written Examination
Content Outline**

The UCNS Headache Medicine (HM) examination was established to determine the level of competence for HM specialists.

The following content outline is provided to examination candidates interested in the certification examination. The content outline consists of five primary categories followed by subcategories. The written examination consists of 200 multiple choice questions.

<u>Content Area</u>	<u>Percentage of Questions</u>
I. Epidemiology and Comorbidity	10%
II. Anatomy and Physiology	20%
III. Headache Classification and Diagnosis	20%
IV. Evaluation and Diagnostic Testing	20%
V. Treatment	30%

I. Epidemiology and Comorbidity

A. Epidemiologic Principles

1. Headache
2. Migraine
3. Cluster
4. Chronic migraine

B. Comorbidities of Migraine

1. Neurologic
2. Psychiatric
3. Sleep
4. Other

II. Anatomy and Physiology

A. Pain Mechanisms

1. Peripheral and central trigeminal pain physiology and anatomy
2. Nociceptive neurotransmission (neuropeptides/neurotransmitters)

3. Peripheral and central sensitization
4. Pain modulation pathways (central antinociceptive network – hypothalamus, periaqueductal grey, raphe nuclei, locus coeruleus, limbic system)

B. Pathophysiology

1. Head and face pain models
2. Individual disorders

C. Headache Pharmacology

III. Headache Classification (ICHD-3) and Diagnosis

- #### A. Primary and Secondary Headache Differentiation (e.g., thunderclap, first or worst, new features)

B. Primary Headache

1. Migraine
2. Tension type
3. Cluster and other TACs
4. Neuralgias
5. Chronic migraine and other chronic headache disorders

C. Secondary Headache, including but not limited to:

1. Stroke
2. Venous sinus thrombosis
3. Arthritis
4. Vascular disorders *(aneurysm, arterial dissection, RCVS)
5. Brain tumor
6. Sinusitis
7. Meningitis and encephalitis
8. Intracranial Pressure abnormalities
9. Toxic and metabolic
10. Disorders of homeostasis
11. Medication Overuse
12. Dental, temporomandibular joint disorders
13. Cervicogenic

D. Pediatric Headache

1. Migraine
2. Episodic Syndromes

3. Trauma or Injury to the Head and/or Neck

E. Headache in the elderly

IV. Evaluation and Diagnostic Testing

A. History and Physical Examination

B. Imaging

1. Computed tomography (CT), CT angiography
2. Magnetic resonance imaging (MRI), MR angiography, MR venography
3. CT and MRI myelography
4. Catheter angiography
5. X-Ray (spine and skull)
6. Radionuclide cisternography

C. Lumbar Puncture

1. Diagnostic
2. Therapeutic

D. Other

1. Polysomnography
2. Tissue biopsy
3. Blood tests
4. Electrocardiogram, echocardiogram
5. Ultrasound (e.g. transcranial Doppler)

V. Treatment

A. Principles of Disease Management and Evidence Based Practice

B. Patient Communication

1. Education
2. Counseling

C. Therapeutic Modalities

1. Behavioral and non-pharmacologic
2. Pharmacologic
3. Physical techniques including but not limited to nerve blocks, cervical facet joint injections, trigger point injections, botulinum toxin, acupuncture, physical therapy and exercise

D. Advanced Therapies

1. Parenteral therapy
2. Inpatient treatment
3. Procedural management

E. Individual Disorders

1. Primary headaches
2. Secondary headaches
3. Chronic headache (primary and secondary)

F. Special Populations

1. Pediatric
2. Pregnancy
3. Elderly
4. Concurrent medical illness
5. Post-traumatic headache