**Neuroscience Nursing - 6KNIC308**

Level: 6  
Credits: 30

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This handbook must be read in conjunction with module information provided on KEATS, the King's E-Learning And Teaching Service. You will be given access to KEATS on enrolment. Important information relating to assessment and related regulations can be found in the Undergraduate Programme Handbook, available on KEATS and via the Student Services Centre.

This handbook can also be provided in alternative formats (such as large print) upon request to asc@kcl.ac.uk.
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Session 2 – Myasthenia Gravis
Session 3 – Guillain-Barre Syndrome
Session 4 – Stroke
Session 5 – Cognitive Assessment and Management of the Confused Patient

Week 8

Session 1 – Respiratory and Tracheostomy Management
Session 3 – Parkinson’s Disease
Session 5 – Neuroethics
Module evaluation

Action from previous evaluations

Timetable
Module overview

This module forms part of the BSc Nursing Practice. The module contributes to your programme of study by developing your clinical knowledge and decision making for patients with neurological disease and post trauma.

The module can also be taken as a freestanding module.

Module aim

- To critically analyse and evaluate the practice of neuroscience nursing.
- To develop and evaluate specialist skills.
- To critically analyse contextual issues and policy drivers for neuroscience nursing practice.
- To evaluate current research, enabling evaluation and synthesis in practice.

Learning outcomes

At the end of the course you will be able to:

1. Select and critically evaluate relevant research in order to promote evidence-based practice.
2. Demonstrate proficiency in the assessment, planning and evaluation of care for the neuroscience patient.
3. Critically analyse the therapeutic interventions for neuroscience patients.
4. Appraise local, national health promotion strategies and evaluate the factors which influence the health care of patients with neurological problems.
5. Evaluate strategies to minimise the impact of chronic illness on patients and families.
6. Critically evaluate the evolving role of the neuroscience nurse within multi-disciplinary care provision.
7. Reflect and evaluate the professional role of self in caring for neuroscience patients within the context of NMC guidelines.
8. Critically examine the professional, ethical and legal issues related to the management of neuroscience patient.

Teaching arrangements

An adult learning approach to learning aims to build on your experience as a qualified practitioner. You will have access to the course leader for personal tutorial time. You are invited to discuss any aspects of the course and to receive guidance and support with your academic development and assessed course work. We aim to help you to relate your course work to your clinical practice throughout the programme.

A variety of teaching strategies will be employed:

- Lectures with interactive discussion
- Patient scenarios
- Group work
- Personal and group tutorials
- Directed Reading/guided study
- Quizzes
- Electronic learning packages
- Independent study (150 hours)
Dates for examinations
You will be notified of dates for examination on the Student Records section of the King’s Intranet.

Results and resits for examinations
Unratified results from exams will be available on your KEATS module site 4 weeks from the date of the examination.

Faculties are required from this academic year 2016/17 to make examination scripts available to any student who makes a request, free of charge. Any requests for examination scripts should still be managed in accordance with the Data Protection Act 1998. Students may request access to their exam paper at any time (after the Assessment Sub Board meeting) during their programme of study. This policy applies to all summative, unseen, written examinations. MCQs and OSCEs are exempt from this process.

Re-sit dates will available on your KEATS module site. If you are unsuccessful, it is recommended that you contact the module leader before submitting your second attempt or re-sitting your examination.

The College and its Examination Boards in the ten Faculties (Institutes/Schools, King's Learning Institute and the Association of King's College (AKC), work with over 500 external examiners to ensure the quality and standard of our taught awards. Find the latest report on the External Examiners Report page, navigate to the Faculty of Nursing and Midwifery section.
Learning resources & indicative reading

Week 1

Session 1 – Welcome
By the end of the session students will:

- Have an understanding of the course learning outcomes, content, teaching strategies and methods of assessment
- Have introduced themselves to other course members.

Indicative reading
Course handbook
Post-qualification Undergraduate Handbook

Session 2 & 3 – Introduction to Neurophysiology and Functional Anatomy of the Brain
By the end of the session students will be able to:

- Identify the function of different cells within the nervous system
- Discuss the process for generation of an action potential
- Discuss the process of neurotransmission and the role of the synapse
- Analyse the role of neurotransmitters in health and illness
- Discuss the functional anatomy of specific areas of the brain and identify the deficits that ensue following injury/disease.

Indicative reading

Please also see electronic reading list for more recent papers.
**Session 4 – Neurological Assessment**
By the end of the session students will be able to:

- Discuss the evidence base for neurological assessment using the Glasgow coma scale
- Critically analyse neurological assessment findings and correctly interpret such data.

**Indicative reading**


Please see electronic reading list for more recent papers.

**Session 5 – Altered Consciousness**
By the end of the session students will be able to:

- Discuss the causes and pathogenesis of altered consciousness
- Identify the different clinical states of altered consciousness.

**Indicative reading**

**E-Learning – cranial nerves**
By the end of the session students will be able to:

- Demonstrates knowledge of the function of the cranial nerves
- Discuss the syndromes related to cranial nerve dysfunction.
Week 2

Session 1 – Physiology of ICP and Cerebral Perfusion

By the end of the session students will be able to:

- Discuss the concepts of intracranial physiology
- Critically analyse the physiological impact of raised intracranial pressure and brain herniation syndromes.

Indicative reading


Session 2 – Management of Raised ICP

By the end of the session students will be able to:

- Differentiate between the different waveforms and understand their significance
- Critically analyse the nursing care of a patient with raised ICP.

Indicative reading


**Session 3 – Brain Tumours**

By the end of the session students will be able to:

- Demonstrate knowledge of the pathophysiology of brain tumours
- Identify the role of steroids in the management of brain tumours
- Discuss the medical and surgical options for treatment of brain tumours
- Analyse the care of patients undergoing radiotherapy/chemotherapy.

**Indicative reading:**


**Please also see electronic reading list for more recent papers**

**Session 4 – Pituitary Lesions**

By the end of the session students will be able to:

- Demonstrate knowledge of the hormones released by the pituitary and their principal actions
- Explain the different types of pituitary tumour
- Analyse the nursing care for a patient pre and post excision of a pituitary tumour

**Indicative reading**


**Week 3**

**Session 1 – Brain Stem Death**
By the end of the session students will be able to:

- Discuss brain stem death
- Discuss the criteria to diagnose brain death
- Critically discuss the nurse’s role in the management and care of the patient and their loved ones.

**Session 2 – Head Injuries**
By the end of the session students will be able to:

- Discuss the pathophysiology of primary & secondary brain injury
- Appraise the current treatment options for raised ICP
- Critically analyse the nursing management of a patient with raised ICP with reference to recent studies
- Explore the long-term physical, psychological and social impact of head injury for the patient and family.

**Indicative reading**


Session 3 – Motor Neurone Disease
By the end of the session students will be able to:

- Demonstrates knowledge of motor pathways and pathophysiology of MND
- Discuss the care needs of patients with MND
- Critically discuss the management of respiratory and nutritional problems
- Demonstrate knowledge of common symptoms and the pharmacological management of these
- Critically discuss the roles of the neurology service and palliative care service.

Indicative reading


Week 4

Session 1 & 2 – Cerebral Circulation and Subarachnoid Haemorrhage
By the end of the session students will be able to:

- Review the anatomy and physiology of cerebral circulation
- Appraise the nursing management of a patient with SAH
- Discuss the pathophysiology of vasospasm
- Examine the potential management strategies and nursing interventions for a patient with vasospasm
- Discuss the possible causes of neurological deterioration in a patient with SAH and the appropriate nursing management.

Indicative reading


Session 3 – Care and Management of Patients with Epilepsy
By the end of the session students will be able to:

- Differentiate between different seizure types
- Critically analyse the role of the nurse in maintaining safety of a patient undergoing seizure activity.
- Evaluate the evidence base for care of patients with epilepsy.

Indicative reading


Week 5

Session 1 – Acoustic Neuroma
By the end of the session students will be able to:

- Demonstrate knowledge of the functional deficits that ensue following damage to each cranial nerve
- Analyse the nursing care for patients with acoustic neuroma before and after surgery
- Demonstrate knowledge of the possible surgical approaches for excising an acoustic neuroma
- Explore the psychological and social impact of facial nerve palsy for the patient and family.

Indicative reading

Session 2 – CNS Infections
By the end of the session students will be able to:

- Demonstrates knowledge of the pathophysiology of meningitis, encephalitis, cerebral abscess and other CNS infections
- Analyse the care of a patient with a CNS infection.

Indicative reading

Session 3 – Hydrocephalus and EVDs
By the end of the session students will be able to:

- Discuss the evidence base for the management of a patient with an EVD.

Indicative reading
**Session 4 – Promotion of Continence and Management of Incontinence**

By the end of the session students will be able to:

- Differentiate between different types of urinary incontinence
- Analyse the care for patients with different types of urinary incontinence

**Indicative reading**


**Session 5 – Multiple Sclerosis**

By the end of the session students will be able to:

- Demonstrates knowledge of the pathophysiology of MS in the CNS
- Discuss the key problems experienced by patients with MS
- Analyse evidence-based interventions for this client group.

**Indicative reading**


**Please also see electronic reading list.**
Week 6

Session 1 – Spinal Anatomy and Physiology
By the end of the session students will be able to:

• Demonstrates knowledge of the various spinal tracts
• Discuss the syndromes related to spinal cord injury.

Indicative reading

Session 2 – Acute Management of Spinal Injuries
By the end of the session students will be able to:

• Discuss the pathophysiology of primary & secondary spinal injury
• Differentiate between spinal and neurogenic shock
• Identify appropriate interventions required for a patient with neurogenic and spinal shock
• Critically examine the management strategies for patients with spinal injury.

Indicative reading


See electronic reading list.

Session 3 – Elective Spinal Surgery
By the end of the session students will be able to:

• Critically discuss the per-operative and post-operative care of patients undergoing elective spinal surgery.

Indicative reading
Week 7

Session 1 – Autonomic Nervous System
By the end of the session students will be able to:

- Discuss the physiological activities controlled by the sympathetic and parasympathetic nervous system.

Indicative reading

Session 2 – Myasthenia Gravis
By the end of the session students will be able to:

- Revise the physiology of nerve conduction
- Explain the pathophysiology of myasthenia gravis
- Demonstrate knowledge of the medical treatment
- Differentiate between cholinergic and myastheniac crisis
- Analyse the nursing care of a patient with myasthenia gravis.

Indicative reading

See electronic reading list.

Session 3 – Guillain-Barre Syndrome
By the end of the session students will be able to:

- Identify the pathophysiology of Guillain-Barre Syndrome
- Discuss approaches to medical management in the acute and rehabilitative phases of the disease
- Discuss the key nursing issues for caring for these patients.

Indicative reading
Session 4 – Stroke
By the end of the session students will be able to:

- Identify the aetiology and epidemiology of stroke
- Discuss the physical, cognitive and emotional problems that may occur as a result of stroke
- Identify current medical management of acute stroke
- Discuss the nursing care and positioning for patients following stroke.

Indicative reading

Please also see the electronic reading list.

Session 5 – Cognitive Assessment and Management of the Confused Patient
By the end of the session students will be able to:

- Discuss the assessment tools that may be used to assess cognitive function
- Discuss factors that contribute to confusion.

Indicative reading
Week 8

Session 1 – Respiratory and Tracheostomy Management
By the end of the session students will be able to:

- Demonstrate knowledge of the anatomy and physiology of the upper respiratory tract
- Discuss the indication for a tracheostomy and the impact on respiratory function
- Critically analyse the evidence base for nursing management of a patient with a tracheostomy.

Session 3 – Parkinson’s Disease
By the end of the session students will be able to:

- Demonstrate knowledge of the functional anatomy of the basal ganglia
- Discuss the pathophysiology of Parkinson’s Disease and related disorders
- Explain the current opinions in medical and surgical management of patients with PD
- Analyse the role of the nurse in caring for patients with PD.

Indicative reading


Session 5 – Neuroethics
By the end of the session students will be able to:

- Critically discuss ethical dilemmas in neuroscience nursing.

Indicative reading

Module evaluation
At the end of the module you are requested to complete the short online evaluation which will be available on your module KEATS site. Student evaluations are very important to us and are required by Health Education England and the regional London Local Education and Training Boards.

Action from previous evaluations
No recommendations for improvements were suggested by students last term. In response to evaluations in term 1 we have increased the number of articles and papers available on the KEATS reading list.
# Timetable

**Neuroscience Nursing 6KNIC308 Timetable Term 3**

<table>
<thead>
<tr>
<th>Teaching mode</th>
<th>Date</th>
<th>Type of session</th>
<th>Title</th>
<th>Time</th>
<th>Group</th>
<th>Room</th>
<th>Lecturer</th>
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<tr>
<td>University based</td>
<td>11 May 2017</td>
<td>Introduction</td>
<td>Introduction to KEATS and the Module</td>
<td>10:00-11:00</td>
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<td>Neurophysiology</td>
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<td>Group work</td>
<td>Management of Raised ICP</td>
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<tr>
<td><strong>Lecture 1</strong></td>
<td>Cerebral Circulation</td>
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<td>Hydrocephalus and Management of EVDs</td>
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<td>CNS Infections</td>
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<td><strong>Lecture 3</strong></td>
<td>Urinary and faecal incontinence</td>
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**Key:**
FWB – Franklin-Wilkins building; Waterloo campus
JCMB – James Clerk Maxwell building; Waterloo campus
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**Key:**

FWB – Franklin-Wilkins Building, Waterloo campus

WBW – Waterloo Bridge Wing, Waterloo Campus

JCBM – James Clerk Maxwell Building, Waterloo campus