Neonatal Intensive Care - 6KNIF316

Level: 6
Credits: 15

Module leader: Lynne Wainwright
Tel: 020 7848 3037
Email: Lynne.m.Wainwright@kcl.ac.uk

Deputy leader: Annette Rathwell
Email: Annette.Rathwell@kcl.ac.uk

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 Nightingale Student Hub.

This handbook can also be provided in alternative formats (such as large print) upon request to asc@kcl.ac.uk.
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Module overview
This module forms part of the BSc Clinical Practice. The module contributes to your programme of study by building on the knowledge and skills developed in the special care and high dependency modules to prepare you to care for babies who require intensive care.

The module may also be taken on a free-standing basis.

Module aim
This course has been designed in partnership with NHS Trusts to enable nurses to care for neonates and their families requiring intensive care. Underpinning physiology and pathophysiology will be explored in order to build a sound knowledge base. Exemplars of good practice will be shared and contentious issues of practice discussed with research awareness.

Learning outcomes
- Apply and evaluate knowledge gained safely and sensitively to underpin decision-making and care giving.
- Apply and evaluate clinical skills gained safely and effectively to promote the wellbeing of the neonate within the intensive care unit
- Provide and evaluate family centred care within the intensive care unit.

Teaching arrangements
The course will be taught by Lynne Wainwright and Annette Rathwell with input from outside speakers/experts. You will be expected to read around topics prior to sessions, utilizing the indicative reading and practice outcomes.

Application of knowledge and skills will be continuously assessed by use of clinical competency documentation.
Submitting coursework
For this module you are assessed by Lynne Wainwright and Annette Rathwell

Assessment criteria
There are 2 components to the assessment process for this course and all parts of the assessment must be completed and submitted by the dates below.

Formative assessment
Halfway through the module you will be expected to submit a midpoint assessment in practice undertaken with your mentor. If any issues are reported from practice, an action plan will be developed by student and mentor and agreed by module leader.

Summative assessment
1. Clinical competence
Attainment of clinical and professional skills commensurate with the aims of this course is essential. Failure to achieve this will result in an overall fail grade for the course.

2. Academic essay
An academic essay of 2,500 words (100% of marks)

Title: Critical analysis of decision making in the care of a baby in NICU

Identify a baby you have cared for in NICU and discuss how they meet the criteria for NICU Care

Guidelines:
Please note that any unsafe care will constitute a FAIL grade.

Choose 3 areas of care from:

- Feeding & nutrition
- Pain assessment and management
- Respiratory care
- Neurological issues
- Cardiac care
- Family centred care / developmental care

For each area critically analyse the nursing decisions that need to be made for the baby.

Demonstrate an in-depth understanding by critically analysing the evidence and rationales for your decision making

The baby chosen should be agreed with the module leader prior to undertaking the assignment.
Coursework submission are provided on the modules KEATS site. It is essential that you use your candidate number on all assignments/examinations. Your candidate number, which will begin with Z for the academic year 2018/19, will be available via Student Records on the King’s Intranet approximately one month after you enrol.

If you are unable to submit your work by the deadline please refer to the information in your programme handbook on “mitigating circumstances”. If you require further support in these circumstances you are advised to contact KCLSU.

Submission date for coursework:
Tuesday 8 January 2019 by 11.59am
Unratified results will be available Tuesday 5 February 2019

Competency assessment document submission date: Tuesday 15 January 2019

The resubmission date is Tuesday 9 April 2019

Late submissions will be accepted for 24 hours following the submission date. All work submitted late will be marked as normal but will be capped at the pass mark for the module. If your assignment is a hard copy please ensure you date stamp it and submit it to the submission room G15 James Clerk Maxwell Building. If your assignment is submitted electronically through TurnItIn, information about how to submit late will be provided on KEATS module sites under assessment information. Please label the file with your candidate number and double-check you have submitted the correct file.

The external examiner for this module is Nathalie Turville. Students are not to make direct contact with external examiners, in particular regarding their individual performance in assessments.

The university 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’s section.
Results and resubmissions for coursework

Students will receive a provisional (unratified) mark for their coursework 4 weeks following submission. According to the method of submission as detailed on your KEATS site, if your work was submitted online you will be able to download marked coursework from KEATS; alternatively, if you completed a hard copy submission you can collect your coursework and feedback from the Nightingale Student Hub.

To collect a hard copy assignment, you must provide your candidate number. Alternatively, you may send a stamped addressed envelope to the https://internal.kcl.ac.uk/student/index.aspx Nightingale Student Hub ensuring that this is large enough to accommodate your assignments and that you have applied sufficient postage. Hard copy assignments will be retained for four weeks; if you have not collected your assignment by then, it will be destroyed.

Feedback will include the award of a numerical grade which remains provisional until ratified by the examination boards. The dates for the examination boards are available on KEATS. Ratified marks can be viewed via Student Records on the King’s Intranet, the Monday following the relevant examination board.

The marking criteria by which your work is judged are provided in full in your programme handbook. Please also refer to the section in your programme handbook on plagiarism and how to avoid it. If you have a query about how to refer to a specific piece of work please ask your module leader, your group leader or a member of library staff for guidance or please use King’s Libguides site.

The feedback you receive on your assignment will guide you towards how to do better next time or how to maintain your existing high standard!

If you do not understand your mark or the feedback you receive please contact Lynne Wainwright.

If you are unsuccessful, it is recommended that you contact the module leader before submitting your second attempt. This will enable the module leader to provide you with an appropriate level of support as you prepare to resubmit your work.

The resubmission date is Tuesday 9 April 2019
**Learning resources**

**Learning outcomes: Neonatal Ventilation**

The aim of these sessions is to enable you to:

- Critically examine the basic principles underlying ventilation mechanics (e.g. atmosphere, resistance and compliance)
- Examine the principles of common ventilation strategies
- Critically examine ventilation graphics in use in your neonatal unit
- Examine the principles of carbon dioxide removal, pH homeostasis
- Systematic review of a chest x-ray
- Critically analyse the practice of performing safe endotracheal suctioning
- Consider the use of analgesia, sedation and paralysis in the care of a ventilated neonate
- Critically discuss the management of emergency situations
- Examine aspects of respiratory development in relation to effects on respiratory functioning
- Discuss the production, storage and function of Surfactant
- Critically discuss modes of ventilation used within your unit
- Examine the different modes of ventilation available
- Analyse the use of ventilation modes for specific patients

**Learning outcomes: Blood Gas Analysis**

The aims of the session are to enable you to:

- Examine the aspects that need to be considered when analysing a blood gas
- Critically discuss analysis of blood gases
- Examine the actions that may be taken as a result of interpreting a blood gas
**Learning outcomes: CNS**

The aims of the session are to enable you to:

- Critically examine CNS development in relation to gestational age
- Analyse the importance of gestational age in relation to sleep and behavioural states
- Identify developmentally appropriate care strategies and practices in relation to CNS development
- Discuss auto-regulation and its influence on homeostasis
- Examine the nursing care for a neonate in relation to Peri/Intra-Ventricular haemorrhage
- Examine the physiology that underpins HIE
- Critically discuss the immediate care of an infant with HIE
- Consider the ethical challenge presented by apoptosis in the brain following HIE
- Examine the causes of seizure activity in the neonate
- Identify and analyse the types of seizure activity in the neonate

**Learning outcomes: Fluid & Electrolyte Balance**

The aims of the session are to enable you to:

- Critically discuss nursing and therapeutic strategies to maintain fluid and electrolyte balance in an acutely ill neonate
- Analyse conditions that may lead to fluid balance problem
- Analyse the issues that may be caused by electrolyte imbalances and the reasons for these.

**Learning outcomes: BP Homeostasis & the Use of Inotropes**

The aims of the session are to enable you to:

- Further develop knowledge and understanding of mechanisms which control blood pressure homeostasis
- Develop your knowledge and understanding of the principles of a) non-invasive b) invasive blood pressure monitoring in the NICU
- Compare and contrast stated inotropes in terms of actions and side effects
- Critically analyse nursing observations and actions when administering inotropic support

**Learning outcomes: Common Surgical Cases on NICU**

The aims of the session are to enable you to:

- Discuss the physiology of common malformations that may require surgical intervention
- Develop your knowledge of the presentation and surgical correction of congenital defects
- Critically analyse the needs of babies who require emergency or planned surgery
- Discuss the nursing care of infants who have had elective and emergency surgery
**General Recommended Reading**

*See online reading list for more specific references*


Module evaluation
As part of the university’s Student Voice Strategy, King’s uses an electronic module evaluation system known as EvaSys. This provides an opportunity for you to feedback on different aspects of the module through a series of pre-set questions and qualitative comments. At the end of the module you will receive an automated invitation via your KCL email account to complete your evaluation online.

Please take the time to complete as your feedback is important. It informs ongoing developments to individual modules to ensure that the learning needs and expectations of the Faculty’s student community are met to a high standard.

To strengthen the feedback cycle, a report summarizing the quantitative results for the module as a whole and the module lead’s reflections on your feedback will be sent to you after the online evaluation survey has closed.
## Timetable

**SUBJECT TO ALTERATIONS**

<table>
<thead>
<tr>
<th>Teaching mode</th>
<th>Date</th>
<th>Type of Session</th>
<th>Title</th>
<th>Time</th>
<th>Lecturer</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>University based study</td>
<td>2 Oct 2018</td>
<td>Introduction</td>
<td>Introduction to module</td>
<td>09.00-9.30</td>
<td>Lynne / Annette</td>
<td>FWB 2.43</td>
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<td></td>
<td>Lecture</td>
<td>The septic baby</td>
<td>10.00-11.15</td>
<td>Dr Watts</td>
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<td>Blood gas analysis</td>
<td>11.30-13.00</td>
<td>Imelda Nolan</td>
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<td></td>
<td>Ventilation</td>
<td>14.00-16.00</td>
<td>SLE Rep</td>
<td>CSC</td>
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<td>E-learning (KEATS)</td>
<td>Ventilation</td>
<td>16.30-17.30</td>
<td>KEATS – self-directed</td>
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<td>University based study</td>
<td>16 Oct 2018</td>
<td>Lecture</td>
<td>Ventilation 2</td>
<td>10.00-12.00</td>
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<td>CSC</td>
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<td>Chest X Rays</td>
<td>12.15-13.00</td>
<td>Annette</td>
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<td>PPHN</td>
<td>14.00-16.00</td>
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<td>University based study</td>
<td>13 Nov 2018</td>
<td>Lecture</td>
<td>CNS</td>
<td>10.00-13.00</td>
<td>Dr Kaiser</td>
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<td>Neonatal surgery</td>
<td>14.00-16.00</td>
<td>Mrs Kufeji</td>
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<td>University based study</td>
<td>4 Dec 2018</td>
<td>E-learning (KEATS)</td>
<td>Cooling</td>
<td>09.00-10.00</td>
<td>KEATS – self-directed</td>
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<td>Blood pressure</td>
<td>12.00-13.00</td>
<td>Lynne</td>
<td>FWB 2.81</td>
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<td>Fluid balance</td>
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<td>Seminar</td>
<td>Evaluation</td>
<td>16.00-17.00</td>
<td>Lynne/Annette</td>
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**Location key:**
FWB – Franklin-Wilkins Building, Waterloo Campus
CSC – Chantler SaIL Centre, Guy’s Campus
The room bookings will remain unchanged. Please be aware that speakers and sessions may change and you are advised to check KEATS regularly.