Rationale of Module
The trajectory of illness characterizing end stage kidney disease is one of progressive, irreversible and gradual decline in patients' functional status (Holley 2012), with renal replacement therapy or kidney transplantation becoming necessary for patient survival. The most up to date information from the National Renal Office puts the incidence rate of patients on renal replacement therapy at 3775 for the end of 2011. Nurses caring for patients receiving renal replacement therapies require specialist knowledge and it is recognised that they are an essential component in the multidisciplinary management of this group of patients.

Module Aims
This module aims to provide the student with theoretical and practical knowledge related to in-centre haemodialysis and home therapies in the treatment of both acute and end-stage kidney disease. It also aims to enhance the student's understanding, skills and attitudes so that he/she may utilise higher levels of clinical judgment, problem solving skills, communication and team skills and evidence based care to systematically care for patients, their partners and their families receiving these forms of renal replacement therapy.

Learning Outcomes
On successful completion of this module, the student will be able to:

- Critically appraise the physiological and technological principles of renal replacement therapies including haemodialysis and peritoneal dialysis.
- Demonstrate critical awareness of the holistic nursing care and management of the renal patient receiving renal replacement therapies.
- Critically explore the complications associated with renal replacement therapies including their management and prevention.
- Critically discuss the physiological concepts and principles of dialysis adequacy.
- Critically explore the forms of therapy available for the management of acute renal failure in the critical care setting.
- Critically explore the principles of therapeutic plasma exchange and the renal nursing management of a patient receiving this therapy.
Indicative Syllabus

- The physiological principles, technologies and techniques of haemodialysis
- Water treatment and water quality for haemodialysis
- Anti-coagulation in haemodialysis
- Concepts and principles of dialysis adequacy.
- The principles, complications and management of vascular access for dialysis.
- Acute complications of the haemodialysis treatment
- Long term management of the patient on regular haemodialysis therapy
- Haemodialysis in the management of acute renal failure
- Dialysis in the critical care setting
- The management and prevention of infection in renal failure patients receiving haemodialysis
- The evolution of peritoneal dialysis.
- Patient selection criteria for peritoneal dialysis and home haemodialysis.
- The physiological principles of peritoneal dialysis.
- Dialysis Technologies for Home Dialysis Therapies.
- The peritoneal dialysis prescription and adequacy of dialysis.
- Peritoneal membrane transport characteristics.
- Access for peritoneal dialysis therapy.
- Preparation of patients for home dialysis therapy.
- The aetiology, pathophysiology, treatment, prevention and nursing management of infectious, non-infectious and metabolic complications of peritoneal dialysis.
- Renal Virology
- Adherence to treatments
- Ethical issues in dialysis
- National/UK/ European/ K/DOQI Standards/ Guidelines for Haemodialysis and Peritoneal Patients including Infection Control Policies and Procedures

Teaching Learning Activities

<table>
<thead>
<tr>
<th>Activity</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact hours including face to face tutorials &amp; workshops</td>
<td>36</td>
</tr>
<tr>
<td>Course work preparation</td>
<td>44</td>
</tr>
<tr>
<td>Directed reading &amp; study</td>
<td>160</td>
</tr>
<tr>
<td>Assessment</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>250</strong></td>
</tr>
<tr>
<td>Examination/Assessment Method</td>
<td>Type of Assessment (Continuous/Terminal)</td>
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<tr>
<td>-------------------------------</td>
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<tr>
<td>Presentation at Nursing Symposium (oral or poster)</td>
<td>Terminal</td>
</tr>
<tr>
<td>Clinical Practice Improvement Project</td>
<td>Continuous</td>
</tr>
</tbody>
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**Indicative Reading**

**Useful Journals**
American Journal of Kidney Diseases
Hemodialysis International
Journal of Advanced Nursing
Journal of Clinical Nursing
Journal of Renal Care
Kidney International
Nephron
Nephrology
Nephrology, Dialysis and Transplantation
Nephrology Nursing Journal
Peritoneal Dialysis International
Seminars in Dialysis
Therapeutic Apheresis and Dialysis

**Additional reading material will be provided by individual lecturers**

**Date of Last Revision: August 2013**