### McCrory, Jayne

From:

D.M.Gallagher [D.M.Gallagher

Sent:

28 May 2009 16:28 Fodey, Kathryn

To: Subject:

FW: Hyponatraemia

importance:

High

Kathy

Please see below a response from one of the main course authors in terms of OU PRNP materials in relation to Hyponatraemia. Please let me know if this is sufficient or how you would like us to present this information for you.

many thanks

Donna

From: V.A.Arrowsmith

Sent: Thu 28/05/2009 16:22

To: D.M.Gallagher Cc: J.A.Messenger

Subject: RE: Hyponatraemia

Hi Donna

How are you? I hope I have understood what Kathy requires. Anyway here is my response:

KYN107 bock 4 introduces principles of safe administration of medicines. Developing skills in calculations begins in KYN107. Numeracy is further developed in KYN101. More learning and teaching on calculations continues in Branch including IVs in Block 4 KYN291 where Safe practice in IV fluid administration is tacked in detail. For example students are directed from the course materials to undertake care of one person with IV infusion in their practice time. Students must produce a comprehensive account of care given and provide an analysis and critique of it. The account is verified by student's mentor for insertion in portfolio. In addition interactive questions on a CDRom and on the course web site continue to build students skills in numeracy for administration of medicines and IV fluids. Managing medications safely is included in the last practice course and includes how to deal with errors and adverse incidents.

Re hyponatraemia: Systematic teaching is provided in SKYN277 as listed below

Book one: basic principles of anatomic structure and chemical bonding and how there affect structure and function of the molecular constituents of living organisms.

Book 2: Concentration of major ions inside and outside the axon of a neuron

Book 3: Regulation of sodium levels referring to the control mechanisms involved. Also in this book kidney including sodium pump are explained in detail.

Hope this is sufficient. Let me know if you need more

Best wishes

Victoria

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### McCrory, Jayne

From:

Teresa Barr [tbarr

Sent:

20 June 2009 22:55

To: Subject:

Fodey, Kathryn Hyponatraemia

Kathy, Maura has passed this on to me for a response. We did not get a request for information as indicated in your e-mail - presumably because they were looking for information from pre - reg courses and did not realise that Return to Practice is included in this. Intravenous fluid management is covered in the Return to Practice courses but there is no major emphasis on Hyponatraemia except for those returning to the Childrens part of the register, As far as in-service is concerned hte Southern Trust has had and will continue to have a series of sessions on Hyponatremia. We also had some open sessions but 3 out of 5 were cancelled due to no applications being received. In adult practice a number of sessions have been delivered on Fluid Balance monitoring. This includes maintenance of fluid balance and causes and effects of imbalance, which includes hyponatraemia.

The topic is also covered in the Paediatric Intensive Care, Children Receiving Anaesthesia and Children in A/E courses as well as Adult Intensive Care and High Dependency courses.

### Regards, Teresa

Teresa Barr
Assistant Director of Nursing and Midwifery Education Beeches Management Centre Craigavon
Area Hospital Site
68 Lurgan Rd.
Craigavon

Tel:

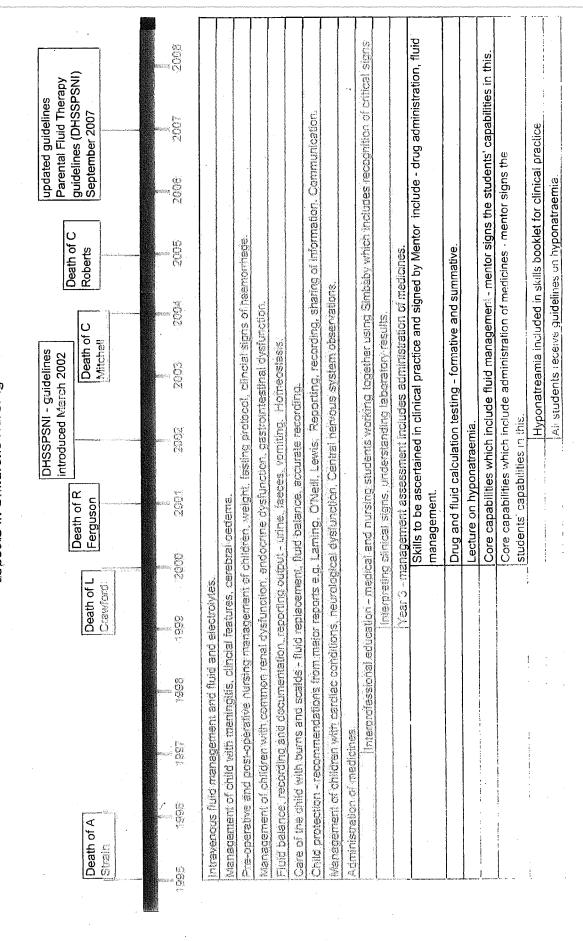
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BT63 5QQ Tel: Mob:

2

Overview of the content of the syllabuses which deal with fluid management and hyponatraemia and other relevant aspects in Childrens Nursing



Overview of the content of the syllabuses which deal with fluid management and hyponatraemia and other relevant aspects in Adult Nursing

# 2001 - 2006

# Year 1 Food and Fluid management

Applies knowledge of fluid requirements needed for health and during illness / recovery so that appropriate fluids can be provided Accurately monitors and records fluid intake and output

Recognises and reports reasons for poor fluid intake and output

Reports to other members of the team when fluid intake and output falls below requirements

# C Jee

Fluid and nutrition replacement, Naso-gastric feeding, Intravenous fluid management, TPN and Sub-cutaneous fluids, Fluid and electrolyte balance, Haemorrhage, Dehydration

Fluid and electrolyte imbalance, Interpretation of blood results, Infusion systems, CVP measurement

# Year 3

Burns - fluid assessment and management, Interpretation of blood results,

Caring for patients with nausea and vomiting

Monitoring nutritional and fluid intake

Maintaining accurate records

Caring for patients who require alternative methods of feeding and fluid replacement

Intravenous fluid management

Core clinical skill developed intravenous fluid management - Knowledge of indications for intravenous fluid replacement and rationale for choice of intravenous fluids

Causes and clinical manifestations of fluid and electrolyte imbalance in the adult patient

Recognition of the signs and symptoms of hyponatraemia

# Food and fluid management

Assess and monitor fluid status and formulate an effective care plan.

Uses negotiating and other skills to encourage patients/clients who might be reluctant to drink to take adequate fluids

Observes signs of dehydration and acts to correct these

Works collaboratively with multi-disciplinary team to ensure an adequate fluid intake and output

# Safely administer fluids when fluids cannot be taken independently

Appreciates why intravenous fluids are prescribed and works within local administration of medicines policy

Monitors and assesses patients/clients receiving intravenous fluids

Documents progress against prescription and markers of hydration who infusion site for signs of abnormality reports and documents any such signs

Cresi ouidelines 2003 Managino hyponatraemis

### McCrory, Jayne

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Barr Owen [o.barr

Sent:

27 September 2009 16:31

To:

Fodey, Kathryn

Subject: Attachments:

FW: Hyponatraemia info from University of Ulster Hyponatraemia Info from University of Ulster.doc

Importance:

High

Kathy

Only just found this in an old folder, apologies for poor filing and delay.

Owen

Dr Owen Barr
RGN, RNMH, RNT, PhD
Head of School
School of Nursing
University of Ulster

Tel. Fax.

From: Barr Owen

Sent: 30 April 2009 08:03

To: martin.bradley

Subject: Hyponatraemia info from University of Ulster

Martin

Apologies for the delay in getting this document to you. This is the information provided to the Inquiry on Hyponatraemia from the School of Nursing.

Please come back to me if you wish to discuss.

Owen

Dr Owen Barr RGN, RNLD, RNT, Ph.D. Head of School School of Nursing University of Ulster Newtownabbey BT37 0OB Northern Ireland

Tel.

Fax.

2

### Education and Training of Nurses in Fluid Management and Hyponatraemia

Dear Ms Dillon

Further to your enquiry regarding 'Education and Training of Nurses in Fluid Management and Hyponatraemia', I provide a response to each of your individual questions. However, it is important to set the context in that no programme specifically resulting in a Children's Nursing qualification has ever been delivered at the University of Ulster. We do have an element of child related content mainly relating to well children and the role of the health visitor in supporting the parents and child during the early years.

The following information was obtained from a review of curriculum documentation and provides relevant information pertaining to each of the four questions.

- 1. Pre-registration nursing programmes delivered at the University of Ulster since 1986 have always been delivered through a modular approached. These modules of study incorporated both clinical and theoretical components. These modules are normally delivered over a 12 week period and are assessed through examination, coursework, clinical assessment or a combination of these methods.
- 2. Since 1986, all of the curriculum documents for the pre-registration programmes at the University of Ulster would have introduced students to the physiology of fluid and electrolyte management in the adult patient. Students are taught about the monitoring of fluid intake and output and the various rationales for this important aspect of care.
- 3. The relevant sections of curriculum documents tend to follow the pattern that students are firstly introduced to fluid and electrolyte balance through the anatomy and physiology components of the programmes. This is then followed by the role of the nurse in the monitoring and recording of a patient's fluid intake and output. Later in the programme, students revisit fluid and electrolyte balance within acute and chronic illness related modules and clinical placements. The following information outlines the relevant information contained within available curriculum documents.

### 1986

### Human Physiology

'Regulation of fluid balance, electrolyte balance, ph of the body fluids, aldosterone, antidiuretic hormones'

Assistance with activities of Daily Living in Hospital and Rehabilitation

'use records and undertake accurate measurement of: urine volume, colour, smell and constituents.'

### **Human Biochemistry**

'Provide the student with an understanding of human function at the cellular level as the basis for the understanding of disease and drug therapy and the effects of these on the individual.'

### Pathophysiology

'Monitoring and management of fluid and electrolyte balance."

### Care of Surgical Patients

'Using observation, measurements and questioning assess the patient's physiological and psychological status during immediate and later post-operative period and recognise the signs and symptoms of post-operative complications e.g. fluid and electrolyte imbalance.'

### 1992

### Human Physiology and Anatomy

'Fluid compartments and their measurements'

'renal control of plasma electrolytes'

### The Practice of Nursing

'Elimination of Urine: assessment and identification of problems'

### Nursing: Theory and Practice

'Disorders of nutrition and fluid and electrolyte balnce: introduction to the cause and effects on the individual and care of the patient with nausea and vomiting; assessment and management of fluid and electrolyte balance'

### Applied Biology II - Pathophysiology

'disorders of elimination; cause and effects of acute and chronic renal failure'

### Nursing the Physically III Adult

'Recognition and management of patient problems associated with disorders of physiology: disturbed fluid and electrolyte balance from any cause'

### Trauma and Critical Care Nursing

'Observation and monitoring of physiological function: urea and electrolyte balance, fluid and blood balance, urinary output'

### 2002

### Fundamentals of Nursing

'introduction to the measurement of fluid intake and output'

### Introduction to the Human Body

'ph of body fluids, electrolytes'

### The Practice of Nursing

'Pre, intra and post operative care'

'Principles and evidence base for practice: elimination'

### The Human Body

'Body fluids and the renal system'

### Knowledge and Skills in Acute Care

'Principles of care of acutely/critically ill patients: fluid and electrolyte balance, ph'

'Care of those undergoing major surgery; fluid and electrolyte management'

'Reading blood gases and analysis of electrolyte profiles'

'IV fluid and electrolyte management'

### 2006

### Clinical Care Knowledge and Skills

'introduction to the measurement of fluid intake and output'

### Preparation for Common Foundation Practice

'pre-operative, intra-operative and post-operative care'

### Preparation for Practice: Perioperative Nursing

'fluid and electrolyte management'

'Principles of treatment: care of IV lines, central lines, volumetric pumps.'

### Critical Care

'principles of physical assessment, general survey, head to toe systems approach; risk assessment; recognition of deterioration;'

'fluid and electrolyte monitoring and management,'

### Disordered Physiology in Disease

'Chronic renal failure: *normal function:* structure of atoms and molecules, chemical bonding, electrolytes; endocrine control of fluid and electrolyte balance; endocrine function of kidneys; *renal failure:* causes of chronic renal failure, physiological disturbances of renal failure; progression of renal failure; *outline of management:* dietary and fluid management, dialysis;'

### Clinical Nutrition

'Nutritional requirements and utilisation: simple and complex carbohydrates; lipids, saturated and unsaturated fats, essential fatty acids; aminoacids and proteins, essential

aminoacids; primary, secondary, tertiary structure of proteins; nucleic acids;

micronutrients: vitamins, minerals; Dietary Reference Values;

Nutritional assessment: assessment of nutritional status; BMI, underweight, overweight, obesity; alcoholism and nutritional deficiencies; risks of malnutrition, screening/assessing risk of malnutrition; effects on wellbeing;

Nutritional support: management of malnutrition: nutritional support, enteral v parenteral nutrition; role of Nutritional Support Teams; the dietitian's role;

Nutritional management in selected conditions:

Adult Nursing: renal failure, diabetes mellitus, elderly

Mental Health Nursing: eating disorders, Alzeimer's disease'

Also within our current programme, students are asked to refer specifically to the rationale for the administration of certain intravenous fluids and the possible complications associated with fluid replacement i.e. hyponatraemia.

# General Points about Curriculum Content on BSc Hons Nursing (Adult) Programmes

Throughout these programmes, students experienced placements within acute care settings such as medical and surgical wards. The course team has always strived to ensure students gain access to one of the main critical care settings such as intensive care units, high dependency units, accident and emergency, theatres/recovery and coronary care. These placements enhanced the development of skills required to assess patients and develop knowledge and understanding pertaining to fluid and electrolyte assessment and management..

As students registered on the BSc Hons Nursing programmes at the University of Ulster were either undertaking the Adult or Mental Health Branches, the publications pertaining to hyponatraemia in children would not have been discussed. However, staff posted information pertaining to the CREST (2003) Guidelines for the Management of Hypontraemia in Adults in the clinical skills laboratories.

