**RNSG 1170 & 2371**

**Concept-Based Transition to Professional Nursing Practice**

**Concept – PERFUSION**

**Concept Definition**

The flow of blood through arteries and capillaries delivering nutrients and oxygen to cells and removing cellular wastes**.**

**Exemplars**

Congestive Heart Failure (CHF)

Hypertension (HTN)

Gestational Hypertension

Mitral Valve Prolapse (MVP)

Coronary Artery Disease (CAD)

Tetralogy of Fallot (congenital)

Peripheral Vascular Disease (PVD)

**Objectives**

1. Explain the concept of perfusion (including definition, antecedents, and attributes).
2. Analyze conditions which place a patient at risk for perfusion imbalance.
3. Identify when perfusion imbalance (negative consequence) is developing or has

developed.

1. Discuss indicators for effective perfusion.
2. Apply the nursing process (including collaborative interventions) for individuals

experiencing perfusion imbalance and to promote normal perfusion.

1. Explain the correlation between each of the above exemplars (*Congestive Heart*

*Failure, Hypertension, Gestational Hypertension, Mitral Valve prolapse, Coronary Artery disease, Tetralogy of Fallot, Peripheral Vascular Disease )* to the concept of Perfusion (including compromised antecedents, deficit measurement in attributes, a list of negative consequences, and the interrelated concepts which may be involved).

1. Identify conditions that place an individual at risk for imbalance leading to

compromised Perfusion resulting in *Congestive Heart Failure, Hypertension, Gestational Hypertension, Mitral Valve prolapse, Coronary Artery disease, Tetralogy of Fallot, and/or Peripheral Vascular Disease*.

1. Apply the nursing process with collaborative interventions for individuals

experiencing *Congestive Heart Failure, Hypertension, Gestational Hypertension, Mitral Valve prolapse, Coronary Artery Disease, Tetralogy of Fallot, and/or Peripheral Vascular Disease.*

**Concept Analysis Diagram**

Note: diagram on separate page.

Explanation of Perfusion Diagram:

When the antecedents occur then normal perfusion happens as indicated by measurable attributes. Positive consequences indicate perfusion which is effective. If antecedents are altered, negative consequences (outcomes), indicated by measurable attributes, may occur that leads to inadequate perfusion which requires necessary interventions. Before interventional measures can be organized and put into action, the negative consequences causing the inadequate perfusion state must be located and traced back to the contributing altered antecedent.

Interrelated concepts may vary dependent on the person whether positive or negative consequences occur.  When nursing interventions are required, they are focused on enhancing antecedents, to allow for optimal measurement of attributes, and hopefully resulting in positive consequences.

**Assignments**

**Prior to class:**

1. Review definitions of inter-rated concepts on concept analysis diagram.

2. Review concept analysis diagram.

3. Review anatomy and physiology of the cardiac system.

4. Assigned reading:

* Berman, A. & Snyder, S. (2012). *Kozier & Erb’s Fundamentals of Nursing*.

Boston: Pearson.

* Chapter 51: Circulation
* Estes, M. (2014*). Health assessment & physical examination (5th Ed.).* Clifton

Park, NY: Delmar Learning.

* Chapter 16: Heart; pg. 527 – 565.
* Chapter 17: Peripheral Vasculature; pg. 568, 569, 579-589.
* Giddens, J.F. (2013). *Concepts for nursing practice.* St. Louis. MO: Mosby Elsevier.
* Chapter 15: Perfusion
* Lewis, S.L., Heitkemper, M.M., Dirksen, S.R., O’Brien, P.G., & Bucher, L.

(2011). *Medical surgical nursing* (8th ed). St. Louis: Mosby Elsevier.

* Chapter 32: Nursing Assessment of Cardiovascular System
* Chapter 33: Hypertension
* Chapter 34: Coronary Artery Disease
* Chapter 35: Heart Failure
* Chapter 37: Inflammatory and Structural Heart Disorder; Mitral Valve Prolapse; pg. 854
* Chapter 38: Vascular Disorders; Peripheral Vascular Disease (PVD/PAD), pg. 867
* McKinney, E, James, S., Murray, S., Nelson, K., & Ashwill, J. (2013).

*Maternal-child nursing(4th ed)*. St. Louis: Elsevier Saunders.

* Chapter 25: Pregnancy-Related Complications; Gestational Hypertension; pg. 591
* Chapter 26: Concurrent Disorders During Pregnancy; Tetralogy of Fallot; pg. 618

5. Internet resources to review:

Videos and Internet resources to review:

* The Circulatory System

<http://mcom.alexanderstreet.com/view/2063519>

* Cardiovascular, Respiratory and Musculoskeletal Systems

<http://mcom.alexanderstreet.com/view/1941085>

* Normal Heart Sounds

<http://mcom.alexanderstreet.com/view/1744967>

* The cardiac cycle- systole & diastole: <http://www.youtube.com/watch?v=jLTdgrhpDCg>
* How the heart works:

<http://www.youtube.com/watch?v=oZ1_TAwCUWw>

* 3D animation of the heart

<http://www.youtube.com/watch?v=NF68qhyfcoM>

* How blood flows thru the heart

<http://www.youtube.com/watch?v=VUtehbgbpRk>

* Blood Flow

<http://www.youtube.com/watch?v=SvAVu-7E2gA>

* The Heart Song

<http://www.youtube.com/watch?v=p-wilmN80XE>

* Circulation

<http://www.youtube.com/watch?v=PgI80Ue-AMo>

* Edge circulatory system

<http://www.youtube.com/watch?v=IgTSRac8ADU>

* Three minute assessment of the cardiovascular system: <http://www.youtube.com/watch?v=SUJctgWQH84>
* Cardiac cycle

<http://www.youtube.com/watch?v=rguztY8aqpk>

* Conduction system of the heart

<http://www.youtube.com/watch?v=te_SY3MeWys>

* Heart contraction and blood flow <http://www.youtube.com/watch?v=lbJ4WRAxP5A>

*Peripheral Vascular Disease*

* [*http://www.youtube.com/watch?v=D2q6vTqR-jc*](http://www.youtube.com/watch?v=D2q6vTqR-jc)
* [*http://www.youtube.com/watch?v=gsM8k0sLT0k&list=PL7B19FF53C3E0F44E*](http://www.youtube.com/watch?v=gsM8k0sLT0k&list=PL7B19FF53C3E0F44E)

*Congestive Heart Failure*

* [*http://www.youtube.com/watch?v=JXA6LjmKsaU*](http://www.youtube.com/watch?v=JXA6LjmKsaU)
* [*http://www.youtube.com/watch?v=3YddwXPWVSc*](http://www.youtube.com/watch?v=3YddwXPWVSc)
* [*http://www.youtube.com/watch?v=RHJBVTdBJvI*](http://www.youtube.com/watch?v=RHJBVTdBJvI)
* [*http://www.youtube.com/watch?v=6N0GBgcWUsw*](http://www.youtube.com/watch?v=6N0GBgcWUsw)
* [*http://www.youtube.com/watch?v=OAlNGdoDt6o*](http://www.youtube.com/watch?v=OAlNGdoDt6o)

*Coronary Artery Disease*

* [*http://www.youtube.com/watch?v=\_wre2WRPiFI*](http://www.youtube.com/watch?v=_wre2WRPiFI) *YouTube Video*
* [*http://video.healthination.com/usnews/heart-disease.html*](http://video.healthination.com/usnews/heart-disease.html) *Healthy Nation Video*

*Tetralogy of Fallot*

* <http://www.youtube.com/watch?v=GBvxyQmkbtA&list=TLh0hbQaWIskU>
* <http://www.youtube.com/watch?v=yePivAlbR4A&list=PL3DF08A08CA0BEE0D>

6. Review the following Nursing Diagnoses:

* Activity Intolerance
* Acute pain
* Anxiety
* Decreased cardiac output
* Deficient knowledge
* Disturbed body image
* Death Anxiety
* Excess fluid volume
* Fatigue
* Gas Exchange, Impaired
* Impaired gas exchange Activity intolerance
* Ineffective self-health management
* Ineffective tissue perfusion
* Noncompliance, ineffective management of therapeutic regimen
* Risk for impaired skin integrity
* Sexual dysfunction

**Concept content outline:**

Concept: **Perfusion**

Sub Concepts: Volume

Vascular Tone

Pump Performance

Risk Factors: Modifiable**:**

Obesity, Sedentary Life Style, Class A Personality (High Stress), Smoking, High Lipids (Cholesterol, Triglycerides) Diabetes Mellitus, Hypertension, Extreme Cold.

Non-Modifiable:

Age, Gender, Genetics

Assessment: Comprehensive history

Physical assessment

Cultural, behavioral, social assessment

Physical and psychological clinical manifestations

Diagnostic tests

Positive Outcomes:

Oriented

Appropriate organ function

Warmth

Negative Outcomes:  
 Physiological

Psychological

Clinical Management:

Nursing interventions

Collaborative interventions

Pharmacological therapy

Non Pharmacological therapy

Procedural therapies

Diagnostic studies

Exemplars:

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N:ADN Syllabus/CBCCurriculum/Transition Summer 2014/Transition Perfusion 4/14