

Learner Outcome:

 Faculty will examine an innovative approach for improving student understanding and retention of clinical core concepts (3P) in graduate MSN programs



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**Leadership** *Defined...* 







- Faculty identified 25 common primary care conditions
- Scoring rubrics prepared for each clinical core course
  - Pathophysiology rubric asks for at least 5 levels of detail concerning pathologic process

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- Pharmacology rubric asks for major medication classes to be included
- Sample maps and templates were provided
  - Students are encouraged to make their own templates if helpful

Leadership Defined...

<ul> <li>Pulmonary <ul> <li>COPD</li> <li>Asthma</li> <li>Pneumonia</li> </ul> </li> <li>Cardiac <ul> <li>HTN</li> <li>Heart Failure</li> <li>Dyslipidemia</li> <li>Heart murmurs</li> </ul> </li> <li>Hematology <ul> <li>Iron Deficiency Anemia</li> <li>Anemia of Chronic Disease</li> <li>Vitamin B12 Deficiency</li> </ul> </li> <li>Neurology <ul> <li>Headaches</li> <li>Vertigo</li> <li>Parkinson's Disease</li> <li>Dementia (Major Neurocognitive Disorder)</li> </ul> </li> <li>GI <ul> <li>GERD</li> <li>Hepatitis</li> <li>Diarrhea</li> </ul> </li> </ul>	<ul> <li>GU         <ul> <li>UTI</li> <li>UTinary Incontinence</li> <li>Hematuria</li> </ul> </li> <li>Endocrine         <ul> <li>Diabetes</li> <li>Hypothyroid</li> <li>Hyperthyroid</li> </ul> </li> <li>Dermatology         <ul> <li>Herpes Zoster</li> <li>Contact Dermatitis</li> </ul> </li> <li>EENT             <ul> <li>Otitis Media</li> <li>Acute rhinosinusitis</li> <li>Pharyngitis</li> <li>Hearing loss</li> </ul> </li> <li>Orthopedics         <ul> <li>Low Back Pain</li> <li>Osteoarthritis</li> <li>Rheumatoid Arthritis</li> </ul> </li> <li>Mood Disorders         <ul> <li>Depression</li> <li>Anxitety</li> <li>Bipolar Disorder</li> </ul> </li> </ul>
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## Methods

- Maps are a threaded work in progress, completed as graded assignments in each clinical core course
  - Serve as study aid for clinical qualifying (3P) exam for those required to complete and clinical reference tool in management courses
  - Serve as teaching aid for nursing education students
  - Serve as study and investigative aid for forensic students

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Leadership Defined...



Risk Factors • Age – typically > 40 years old • Obesity • Hypertension • Sedentary lifestyle • Family history • Environmental-Genetic interactions • Metabolic syndrome

## <u>Pathophysiology</u> --Type 2 Diabetes is much more common than Type 1.

accounts for 90% of all diabetes cases, and has been rising in incidence since 1940. -10.5% of those aged 45 to 64 years and 18.4% of those aged 65 to 74 years.

Prevalence varies by ethnic group and gender and is ighest in African American women

highest in African American women. -Unlike Type 1 Diabetes, in Type 2 Diabetes the body continues to produce insulin in the Beta cells of the pancreas, but does not respond to it properly. -There are 8 Body system core defects that contribute to this disease state, such as: pancreatic beta cells (decreased insulin secretica), liver (increased hepatic glucose production), muscle (decreased depatic glucose production), muscle (decreased glucose uptake), fat (increased lipolysi), gut (decreased glucose secretion), kidney (increased glucose reabsorption), and brain (neurotransmitter dysfunction).

## T2D

Pharmacology \*Biguanides: Metformin-1st line treatment in type 2 DM. Metformin ER 500 mg BID or 850 mg once daily (Max 2550 mg). Metformin ER 500-1000 mg once daily. Monotherapy or used in combination with other agents. -- Biguanides increases peripheral glucose uptake and utilization (insulin sensitivity), decreases haptatic glucose production, and decreases intestinal absorption of glucose. Improve glucose tolerance and lower both basal and postprandial plasma glucose levels. \*<u>Sulfonylures</u>: Glupizde 5 mg (max 40 mg), Glyburide 2.5 mg, Glimepiride 1 mg (max 8mg).

-- Sulfonylureas increases endogenous insulin secretion by the beta cells of the pancreas related to increased

cAMP generation. Potentiate antidiuretic hormone and produce mild diuresis.

\*<u>Alpha-Glucosidase inhibitors</u>: Acarbose (25 mg 3xday with first bite of each meal). Past Medical History •Obesity •Hypertension •Polycystic Ovarian Syndrome •Metabolic Syndrome (htn, hypercholesterolemia, abdominal obesity) •Dyslipidemia

Physical Assessment •Fatigue, weakness •Irritability •Polyuria •Polydipsia •Polyphagia •Poor wound healing •Vaginal infections

## \*

Desired Outcomes \*Near normalization of blood glucose. \*Prevention of complications such as hypoglycemia. \*Prevention of disease progression and organ damage. \*Appropriate patientoriented self-management. \*Hb A1C - 7% \*Pre-prandial plasma glucose 80-130mg/dL, 2- hour Postprandial plasma glucose <180mg/dL







