Strengthening the Pharmacist Skills in Managing Diabetes
Practice Based Program
27 Contact Hours

Presented by New York State Council of
Health-system Pharmacists
October 18-19, 2013
St. John's University, Bartilucci Center, Fresh Meadows, NY

Practice Based Program

Diabetes Practice Based Certificate Program developed by the New York State Council of Health-system Pharmacists, is supported in part by independent educational grants from Greater NY Hospital Association Services, Inc,

DAY 1

TIME	Duration	TOPIC	SPEAKERS
7:30AM – 8:00AM	20 min	REGISTRATION	
8:00AM – 8:05AM	10 min	WELCOME	Deb Feinberg, BS Pharm, J.D. Executive Director, NYSCHP
FOUNDATIONAL EVIDENCE & COMPLICATIONS			
8:05AM-8:45AM	40 min	DEVICE USE	Asim Abu-Baker, PharmD, CDE
8:45AM-9:45AM	60 min	EVIDENCE-BASED GOALS OF THERAPY	Andrea Traina, PharmD, BCPS, BCACP
9:45AM – 10:15AM	30 min	MICROVASCULAR COMPLICATIONS	Andrea Traina, PharmD, BCPS, BCACP
10:15AM-10:30AM	15 min	**BREAK**	
10:30AM – 12:30PM	120 min	MACROVASULAR COMPLICATIONS Prevention & Treatment	Lisa Phillips, BS Pharm, PharmD, CACP
12:30PM – 1:30PM	60 min	**LUNCH**	Industry Display
PHARMACOLOGY & CLINICAL MANAGEMENT WITH A FOCUS ON HOW TO AVOID & MANAGE ADVERSE DRUG EVENTS			
1:30PM – 3:00PM	90 min	NON-INSULIN MEDICATIONS- Jeopardy-Know your pearls! To Avoid and Manage Adverse Drug Events- medication safety	Asim Abu-Baker, Pharm.D., CDE, Lisa Phillips, BS Pharm, PharmD, CACP, BAAP
3:00PM-3:15PM	15 min	BREAK	
3:15PM – 5:15PM	120 min	NUTRITION COUNSELING: Carbohydrate counting Nutritional interventions Mealtime insulin	Mary Jo Lakomski, RPH, CDE, BCACP
4:30PM-5:30PM	60 min	INSULINS	Asim Abu-Baker, PharmD, CDE
5:30PM – 6:15PM	45 min	DIABETES MANAGEMENT PROGRAM IN THE CDTM MODEL AND PARALLEL CLINICAL OPPORTUNITIES	Andrea Traina, PharmD, BCPS, BCACP Mary Jo Lakomski, RPH, CDE, BCACP Asim Abu-Baker, PharmD, CDE Lisa Phillips, BS Pharm, PharmD, CACP

DAY 2

TIME	Duration	APPLICATION AND SYNTHESIS	SPEAKERS
7:30AM – 8:00AM	30 min	CONTENANTIAL BREAKFAST	
8:00AM-10:30AM	150 min	INSULINS, INSULIN DOSING ADJUSTMENTS & MONITORING FREQUENCY: Pattern Management/Hypoglycemia management	Mary Jo Lakomski, RPH, CDE, BCACP Asim Abu-Baker, PharmD, CDE
10:30AM-10:45 PM	15 min	BREAK	Andrea Traina, PharmD, BCPS, BCACP Mary Jo Lakomski, RPH, CDE, BCACP Asim Abu-Baker, PharmD, CDE Lisa Phillips, BS Pharm, PharmD, CACP
10:45AM – 1:15PM	150 min	CASE-BASED INTERACTIVE WORKSHOP	
1:15PM		FINAL EXAM DISTRIBUTION. EXAM DUE TO NYSCHP BY OCTOBER 27, 2013 BOXED LUNCH	

Intended Audience:
This educational activity has been designed for pharmacists who desired to gain more knowledge regarding management of diabetic pharmacotherapy and for those who are actively involved in providing care to patients with diabetes.

The key components involve:

- Patient assessment
- An understanding of the pathophysiology of diabetes; Type I and II
- Comprehensive understanding of the pharmacokinetics and dynamics of antidiabetic pharmacotherapy
- Case-based application of insulin dosing paired with interpretation of blood glucometer readings
- Hands-on training for glucometers and insulin and non-insulin devices
- Baseline principles of dietary interventions with associated patient education and motivational strategies
- Application of current guidelines with a working knowledge of individualized drug selection and algorithm management
- A detailed focus on factors which influence therapy

Statement of Need:
Diabetes is a disease on the rise and requires all health care providers to have a working knowledge of management. This certificate program is a comprehensive program designed to provide pharmacists with the basic knowledge and skills necessary to care for diabetic patients. Certification in diabetes is necessary to ensure appropriate patient care and therapy with the goal of improving patient satisfaction, optimizing patient care, safety and minimizing adverse drug effects.

Learner's Gap:
This activity will assist pharmacists in their understanding of diabetes management by providing them with basic and advanced knowledge in diabetes management from diet, drugs, devices and patient counseling and motivation.

- Differentiate the pharmacology and pharmacokinetics of all antidiabetic classes of medications.
- Develop the skills needed to better understand insulin management especially in conjunction with patient reported diet and blood glucometer results.
- Understand simple approaches to motivating and counseling patient to make change in their lives to optimize their diabetes care.
- Apply appropriate strategies to prevention or treatment cardiovascular complications.

Special Needs:
NYSCHP complies with the legal requirements of the Americans with Disabilities Act.

LEARNING OBJECTIVES OF THE SELF STUDY COURSE:

The self-study component is meant to ensure that all participants have a **basic understanding and comprehension** of the pharmacology, pharmacokinetics, and pharmacodynamics of antidiabetic agents; including a working knowledge of the pathophysiology of diabetics and evidence that provides the foundation for comprehensive management. These baseline skills are required so that during the live program advance principles can be applied.

At the conclusion of the self study, participants should be better able to:

GENERAL APPRECIATION OF ADA GUIDELINES

- Explain the diagnostic criteria for type 1 and type 2 diabetes mellitus.
- Comprehend the treatment goals (glycemic, lipid and blood pressure) for a patient with type 1 or type 2 diabetes mellitus.
- Identify monitoring parameters for diabetes mellitus, including monitoring for disease progression, complications, glycemic control and be able to recommend a timeframe for each.
- Recommend initial antihyperglycemic treatment for a patient newly diagnosed with type 2 diabetes.
- Explain when an angiotensin converting enzyme inhibitor or angiotensin receptor blocker should be initiated in a patient with diabetes.
- State the activity and nutritional recommendations for patients with diabetes.

PATHOPHYSIOLOGY

- Describe normal physiology of insulin secretion and glucose metabolism
- Differentiate between and recognize the prevalence of Type 1 and Type 2 DM, Impaired Glucose Tolerance, Impaired Fasting Glucose, and metabolic syndrome.
- List the pathophysiology of type 1 and type 2 DM
- Describe the complications associated with DM.

CARDIOVASCULAR DISEASE AND DIABETES

- Discuss the epidemiology of heart disease and diabetes.
- Review and analyze the data which provides evidence to support the therapeutic strategies for prevention and treatment of cardiovascular disease in diabetic patients.
- Define the role of antiplatelet agents and RAAS inhibition in patients with diabetes.

BASICS OF INSULIN DOSING

- Differentiate human insulin and insulin analogs from each other, including pharmacokinetics, predictability, incidence of hypoglycemia, weight gain and patient administration.
- Explain the rationale for intensification of insulin regimens.
- Explain the role of clinical inertia as it pertains to the initiation of insulin therapy.

BASICS OF NON-INSULIN THERAPY

- Differentiate between the several oral and non-insulin injectable used for the treatment of diabetes, including pharmacokinetics, anticipated effect, incidence of hypoglycemia and principle adverse effects.

ORAL AGENTS	
Insulin secretagogues	Sulfonylureas (SU)
	Meglitinides
Insulin sensitizers	Biguanide (metformin)
	Thiazolidinediones (TZD)
Carbohydrate absorption inhibitors	Alpha-glucosidase inhibitors
Incretin hormone activators	Dipeptidyl peptidase-4 inhibitors (DPP-4 inhibitors)
INJECTABLE AGENTS	
Incretin hormone activators	Incretin mimetics
	Amylin

LEARNING OBJECTIVES OF THE LIVE SEMINAR:

At the conclusion of the live seminar, participants should be better able to:

EVIDENCE BASED GOALS OF THERAPY

- Differentiate between the recommendation bodies for the treatment of diabetes (ADA and AACE); explain the difference in inpatient and outpatient diabetes management and treatment goals.
- Recommend patient specific goals of treatment for the management of diabetes taking into account duration of diabetes, comorbid conditions, patient preference and clinical presentation.
- Describe guidelines directed at improving the safety and efficacy of antidiabetic therapy.

COMPLICATIONS

- Define and differentiate DKA & HHS, including the precipitating factors, signs and symptoms, goals of treatment and appropriate treatment and prevention strategies for both of these acute complications.
- Demonstrate an understanding of the etiology, pathophysiology, classification, clinical presentation, and treatment of diabetes-related complications (neuropathic, microvascular and macrovascular).
- Recognize and educate on signs symptoms and appropriate treatment of hypoglycemia focusing on patient safety.
- Apply evidenced based medicine to interactive cases which highlight pharmacology strategies for cardiovascular risk prevention and treatment.

NUTRITION COUNSELING

- Explain misconceptions of the “diabetic diet” and explain general guidance on proper nutrition so to assist in the attainment of goals while appreciating challenges of sustaining a healthy lifestyle required by diabetes.
- Explain the concept of carbohydrate counting and its role in blood sugar management.
- Compare and contrast mealtime insulin dosing for Type 1 and Type 2 Diabetics.

METERS AND MONITORING

- Explain methods for monitoring BG levels and their purpose of use
- Describe how to properly obtain a SMBG by the fingerstick and alternate site method
- Explain the purpose of alternate site testing and when it should and should not be used
- Describe the proper steps of addressing hypoglycemia
- Interpreting SMBG results in relation to insulin dosing and dietary intake (pattern management)

NON-INSULIN MEDICATIONS

- Explain the place in therapy for non-insulin agents in the management of diabetes.
- Demonstrate knowledge with principle counseling points regarding administration of non-insulin injectable agents.
- Describe guidelines directed at improving the safety and efficacy of antidiabetic therapy.

INSULIN

- Summarize the role of timely initiation and intensification of insulin therapy in the management of diabetes as a chronic disease state.
- Describe how to initiate and modify existing insulin regimens to achieve glycemic targets.
- Examine available modalities of insulin delivery and describe their role in the outpatient setting.
- Discuss the appropriate use of insulin and strategies to reduce medication errors.

DIABETES MANAGEMENT PROGRAMS AND CASE-BASED WORKSHOP

- Describe the implementation and potential of pharmacist-run diabetes management services
- Synthesize complex patient case scenarios and data to arrive at a recommended treatment strategy discussing medication errors and plans to reduce said errors.
- Apply learned concepts to patient case scenarios

Accreditation:

Diabetes Practice Based Certificate Program was developed by the New York State Council of Health-system Pharmacists and supported in part by independent education grants from Greater NY Hospital Association Services, Inc. The New York State Council of Health-system Pharmacists is accredited by the Accreditation Council for Pharmacy Education as a provider of continuing pharmacy education.

Activity type: Practice Based

Credit Designation:

Self-study learning portion of the *Diabetes Practice Based Program* is approved for 12 hours (1.2 CEUs) of continuing education credit. ACPE Universal Activity Number is 0134-0000-13-117-H01-P (Initial release date: 10/18/2013; expiration 10/18/2016). Knowledge Based

Live training seminar is approved for 15.0 hours (1.5 CEUs) of continuing education credit. This total of 15 contact hours includes medication safety and strategies to reduce medication errors for the treatment of diabetes. ACPE Activity Number is 0134-0000-13-118-L01-P (Initial release date: 10/18/2013; expiration date 10/18/2016). Application Based

Certification Practice Based Certificate: UPN: 0134-0017 27 Contact Hours (2.7 CEUs)

**Certificate of Achievement* will be mailed to participants 6 weeks following receipt of completed program materials.

Conflict of Interest Statement:
The "Conflict of Interest Disclosure Policy" of New York State Council of Health-system Pharmacists requires that faculty participating in any CE activity disclose to the audience any relationship(s) with a pharmaceutical or equipment company. Any presenter who has disclosed relationships may create a conflict of interest with regard to their contribution to the activity and will not be permitted to present. New York State Council of Health-system Pharmacists also requires that faculty participating in any CE activity disclose to the audience when discussing any unlabeled or investigational use of any commercial product, or device, not yet approved for use in the United States.

Program instructions:
The *Diabetes Practice Based Program* is conducted in two parts: the self- study and the live training seminar.

To earn a Certificate of Achievement, participants must successfully meet the following requirements:

1. Read the Self Study Materials in their entirety and successfully complete the Self-Study Assessment/Examination. Obtain a score of 70% or better is required.
2. Attend Seminar, participate in practice-based case learning and successfully complete the open book Final Exam.
    a. A score of 70% or better is required.
    b. Open book exam means any reference (i.e., electronic, program notes or any book) can be used to answer the final exam questions. The final exam is not a collaborative exam and must

be completed independently. You must complete the on line exam by midnight by October 27, 2013.

3. A *Certificate of Achievement* is awarded to participants who successfully complete all program requirements. Certificate will be mailed within 6 weeks of the date of the program.

Program Fees:

		Program Fees after September 18, 2013	
NYSCHP Members: Pharmacist	**$550.00**	**NYSCHP Members: Pharmacist**	**$600.00**
NYSCHP Members: Resident	**$450.00**	**NYSCHP Members: Resident**	**$500.00**
NYSCHP Members: Student	**$450.00**	**NYSCHP Members: Student**	**$500.00**
Non Members: Pharmacist	**$700.00**	**Non Members: Pharmacist**	**$750.00**

REGISTRATION IS NOW OPEN
REGISTER
For detailed information visit: www.nyschp.org

Course Directors/Faculty

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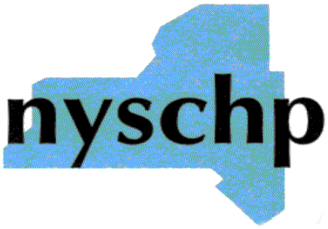

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