

HOLLADAY HEALTHCARE PHARMACY

HOLLADAY HAPPENINGS

VALUE - DEDICATION - QUALITY



Inside this Issue:

- The New Shingles Vaccine (1)
- Januvia (2)
- Non-Pharmacological Treatment for Dementia(2)
- Holladay in the Community (2)
- New Risks of PPIs (3)
- Meet the Staff (3)
- HELP 2018 (3)
- ICD-10 Code App (4)
- Weight Loss T/F (4)

NEW SHINGLES VACCINE COMING SOON

Primary infection with the varicella-zoster virus (VZV) causes varicella which is also known as chickenpox. After the chickenpox has run its course, the VZV retreats to cells in the nervous system where it lies dormant. Herpes zoster, also known as shingles, is a reactivation of the latent VZV within the sensory ganglia that travels along nerve fibers to the skin. Shingles is more common in people over 50 years old and those who are immunocompromised. Shingles typically results in a row of red dots one side of the body or face with a stabbing or shooting pain. There may also be tingling under the skin, fever, chills, headache and upset stomach. The rash eventually turns into painful, red, fluid filled blisters which dry out and crust over in 7 to 10 days. Some people may develop postherpetic neuralgia (PHN) which is pain, itching, burning and tingling that can be severe and can last for months or years after the rash has cleared.

A new shingles vaccine called Shingrix was approved in October 2017 and will be available soon. The table below compares some key points for the older shingles vaccine, Zostavax, to the new vaccine, Shingrix.

	ZOSTAVAX	SHINGRIX
FDA approval date:	2006	October 2017
Efficacy:	51% overall for those age 60 and older	97% for those age 50 to < 70 91% for those age 70 and older
Reduction in incidence of post-herpetic neuralgia:	5% for age 60-69 55% for age 70-79 26% for age 80 and above	89% for age 70 and older
Type of vaccine:	Live	Non-live recombinant with adjuvant to boost immunity
Route:	Subcutaneous	Intramuscular
Schedule:	Single Dose	Two doses 2 to 6 months apart
Most common adverse reaction:	Pain at injection site: up to 54%	Pain at injection site: up to 88%

H.E.L.P. 2018

**REGISTRATION
OPEN**

**March
15th-16th
Greensboro, NC**

On the basis of available efficacy, safety, and cost-effectiveness data, the CDC's Advisory Committee on Immunization Practices (ACIP) voted in October 2017 to recommend Shingrix for healthy adults aged 50 and older including those who have previously received Zostavax, and voted that Shingrix is the preferred vaccine for preventing shingles and related complications. Once the ACIP recommendations are reviewed and approved by the CDC, the final guidelines and recommendations will be published by the CDC. Be on the lookout for these 1 guidelines in early 2018 including recommendations on the wait period between receiving Zostavax and Shingrix.

Charlotte Matheny, PharmD, CGP is a consultant pharmacist with Holladay Healthcare Pharmacy.

Januvia (Sitagliptin), The First DPP-4 Inhibitor

JANUVIA is a dipeptidyl peptidase-4 (DPP-4) inhibitor indicated as an adjunct to diet and exercise to improve glycemic control in adults with Type 2 diabetes mellitus. It was approved in the US in 2006. It may also be used in combination with other medications for Type-2 diabetes, including insulin.

- **Mechanism of Action:** Januvia inhibits DPP-4 activity, increasing postprandial incretin (GLP-1, GIP) concentrations. It increases insulin secretion and decreases glucagon secretion.
- **Efficacy:** Januvia was approved after multiple trials, two monotherapy trials, with over 1000 patients and seven add-on therapy with metformin, pioglitazone (Actos) or insulin. All studies with Januvia once daily provided significant improvements in hemoglobin A1C, fasting plasma glucose (FPG) and 2-hour post prandial glucose (PPG) compared to placebo.
- **Dosing/Administration:** Dose is 100mg daily with or without food. For patients with renal impairment, the dose is 50 mg daily if eGFR 30–50; 25 mg daily if eGFR <30. In patients with end-stage renal disease requiring hemodialysis or peritoneal dialysis, the dose of JANUVIA is 25 mg once daily and Januvia may be administered without regard to the timing of dialysis. Because there is a need for dosage adjustment based upon renal function, assessment of renal function is recommended prior to initiation of Januvia and periodically thereafter. Januvia has not been studied in patients with severe liver disease.
- **Adverse Effects:** Adverse events associated with the use of Januvia may include, but are not limited to, the following: upper respiratory tract infection, nasopharyngitis and headache.
- **Warnings and Precautions:** Januvia should not be used in patients with Type-1 diabetes. There have been post-marketing reports of pancreatitis, heart failure, renal failure and severe allergic reactions including SJS. There have also been reports of severe arthralgias. Patients should adjust dose if they have impaired renal function. If a patient experiences severe abdominal pain, a symptom of pancreatitis, a physician should be consulted and Januvia should be stopped.
- **Combination Products:** Janumet (sitagliptin and metformin), Janumet XR (sitagliptin and metformin extended release).
- What is another name for DPP-4 inhibitors? Gliptins.
- What are other DPP-4 inhibitors approved in the US? Onglyza (Saxagliptin), Trajenta (Linagliptin), and Nesina (alogliptin).

Candice Teeter, RPh., is a consultant pharmacist with Holladay Healthcare Pharmacy.

NON-PHARMACOLOGICAL TREATMENT OPTIONS FOR DEMENTIA

Dementia is a neurological disease characterized by behavioral issues, altered cognition, and issues performing activities of daily living. With the aging baby boomer population, dementia is estimated to afflict 14 million Americans by the year 2050. Anxiolytics are one of the mainstay pharmacologic treatments utilized for behavioral and psychiatric symptoms associated with dementia (BPSD). However, this medication class is associated with dependency, the risk of falling, and the potential for inducing Alzheimer's in geriatric patients. Non-pharmacologic methods have been shown to be an effective alternative to the use of anxiolytics in these patients.

The majority of non-pharmacologic methods to manage BPSD utilize sensory stimulation. One simple yet effective method that utilizes sensory stimulation is the utilization of tactile stimulation via the means of a hand massage or pet therapy. The use of tactile stimulation has been shown to decrease anxiety and agitation while increasing self-esteem in these patients. Another sensory method utilizes aromatherapy with lavender or sunflower oil at the patient's bedside. An uncommon non-pharmacologic method utilized in BPSD patients is reminiscence therapy. Reminiscence therapy utilizes personal items or photographs of the past in order to stimulate verbal communication and decrease anxiety and agitation.

Per CMS regulations, non-pharmacological treatment options should be first utilized to manage behavioral issue. Non-pharmacologic treatment options have been proven to be both effective and safe for the geriatric population. Please contact Holladay Pharmacy for more information and suggestions on successful non-pharmacological treatment options.

1. Grillo D, Anderson R, Amiti A. Non Pharmacologic Approaches to Managing Behavioral and Psychiatric Symptoms of Dementia. *Annals of Long Term Care: Clinical Care and Aging*. 2017 [cited 2017 Nov 3]; 25(4):

Gregory Hanseler is a Doctor of Pharmacy Candidate 2018 and an intern with Holladay Healthcare Pharmacy.

**HOLLADAY
HEALTHCARE
PHARMACY**
Out in the Community

**NCHCFA Annual
Conference 2018**

The North Carolina Health Care Facilities Association's Annual Conference will be held January 28th-31st at the Koury Convention Center in Greensboro, NC. Holladay will be there supporting the NCHCFA Association and participating in the Game On/ Homecoming theme. Come by the Holladay booth at the trade show on January 30th, for some fun, prizes and education.

For more information, visit nursinghomesnc.com

NEW RISKS OF PROTON PUMP INHIBITORS

There has been extensive evidence to support using proton pump inhibitors (PPIs) for short term use only. Unfortunately, in the long term care setting, most patients take PPIs due to being discharged on one from the hospital. Part of the job of the pharmacist consultant is to keep patients safe and this includes requesting that PPIs like Prilosec and Protonix are used for the shortest duration possible when appropriate.

The evidence supporting adverse events such as increased risk of infections from *Clostridium difficile*, increased events of osteoporosis, electrolyte imbalances and B12 deficiency has brought this class of medication to be on the BEERS list, or the list of medications that are potentially inappropriate for use in the elderly. Recently a new adverse event was identified.

Recent investigations have suggested an association between PPI use and an increased risk of dementia. While the increase was seen in all types of dementia, Alzheimer's disease was specifically identified. Several studies have been conducted to try and find the cause.

Gomm et al, provided evidence of a link between PPI use and dementia.¹ The study looked at over 70,000 participants over 75 years of age and who were free of dementia. The participants were followed for 7 years and were divided into 2 groups; those who took PPIs and those who did not.

After adjusting for other risk factors, the PPI users were found to be 44% more likely to be diagnosed with dementia. While an absolute causation has not been established, best practice would be to minimize the use of the PPI class of medications in the elderly.

1. Gomm W, Klaus von H, Friederike T et al. Association of proton pump inhibitors with risk of dementia: a pharmacoepidemiological claims analysis. *JAMA Neurol* 2016;73:410-6.

Christy Ledger, PharmD, MS, BCGP, is a consultant pharmacist with Holladay Healthcare Pharmacy.

MEET THE STAFF :

Kimberly Jones

After 9 years at the Walgreens of Mocksville, Kimberly took a leap of faith and joined the team at Holladay in June of 2016. Kimberly's primary role is a Data Entry Technician. She is responsible for order entry and customer care. Kimberly goes above and beyond in her role, ensuring that her customers' needs are being met, and Holladay is exceeding expectations. She takes pride in her role as a technician and truly cares about her patients, as well as the staff at the facilities.

Kimberly has lived in Davie County all of her life and is blessed to have such a beautiful family. Her husband Blake, has been a Volunteer Fireman at the William R. Davie Fire Department for almost 20 years. Kimberly and Blake are the proud parents of Craig (11) and Emma (4). Their lives revolve around the baseball field and they would have it no other way! Craig plays travel baseball for two different teams out of Yadkin County. And, thankfully, Emma enjoys being a "baseball sister".

Family means everything to Kimberly. Her family, including her parents, do everything together. Kimberly says, "Holladay is such a great place to work, because everyone does feel like family. It is nice to have a job where you enjoy coming to work everyday." One interesting fact that may not be known about Kimberly, is that she found out she was pregnant with Craig while in nursing school and eventually would like to go back to become a NICU nurse. In the meantime, we are glad Kimberly is part of the "family" here at Holladay.

TO REGISTER FOR H.E.L.P.

- GO TO: www.nwahec.org/53675
- Select "Register for Event"
- If not in AHEC system, enter profile information and return to registration link to register
- Review & update profile information
- Complete all required parts of registration form
- Confirmation will be emailed
- Print as proof of registration

H.E.L.P. 2018 Holladay Educational Learning Program

Holladay Healthcare is pleased to announce the 9th annual H.E.L.P. symposium. Join us on March 15th - March 16th in Greensboro at the Proximity Hotel. Administrators and nurses will be awarded contact hours for attending.

This year's H.E.L.P. symposium will be an event you do not want to miss. The agenda explores topics ranging from *Strategies to Retain Millennials to New Medications and Gadgets*. Also highlighting Holladay's 2018 program is Terri Johnson Harris from SmithMooreLeatherwood Attorney at Law discussing *Healthcare Litigation Insight*. Other topics pertinent to long term care today, include *Infection Control* and *Preventing Employee Burnout*.

Do not miss out on the valuable education, fun and fellowship! Space is limited and the H.E.L.P. symposium fills up quickly. Please contact 1-800-848-3446 for additional information or visit the Holladay website at holladaycare.com for a complete list of topics.



Holladay Healthcare Pharmacy
 2560 Landmark Drive
 Winston-Salem, NC 27103
 1-800-848-3446
 holladaycare.com



ICD - 10 CODE AND DISEASE

Did you know the ICD codes are updated every year? In 2017, the ICD codes were updated and the current release is good from October 2017 thru September 2018 per CMS.gov. The International Classification of Diseases, Tenth Revision, Clinical Modification abbreviated term “ICD-10-CM” is a system used by healthcare providers to classify and code diagnoses, symptoms and procedures in the healthcare system.

The “ICD 10 Code and Disease” from MEDBIND is an application (APP) for use for quick lookup of all current ICD10-CM codes and diseases. It is available FREE from **Med bind** and can be used on smartphones or tablets systems including iPad, iPhone or Android devices. Although only recommended for educational use, the application includes Clinical Management (CM) Codes, Indexes, Procedure (PCS) Codes, Health Topics and ICD term definitions and can be a

Jennifer Hamilton, Pharm D, CGP is a consultant pharmacist with Holladay Healthcare Pharmacy.

Weight Loss True/False

1. True or false? To lose 1 pound of body weight, you must burn 3,500 calories.
2. True or false? Carbs, proteins, and fat all have about the same amount of calories.
3. True or false? Excess calories from fat are more easily stored as body fat than other types of calories.
4. True or false? "Empty calories" refers to foods that are "free," or have virtually no calories.
5. True or false? Calories eaten at night turn to fat more easily than those eaten during the day.

1. True: You can do this by reducing the number of calories you eat, burning more calories through physical activity, or both.
 2. False: Carbohydrate and protein each weigh in at 4 calories per gram, while fat has 9 calories per gram, and alcohol has 7 calories per gram.
 3. True: Extra dietary fat is easily stored as body fat. Excess proteins and carbs require more work to be converted for storage.
 4. False: Empty-calorie foods are those that offer little nutritional value, but lots of calories. Most empty-calorie foods have few vitamins, minerals, or fiber, but are high in calories, fat, and/or sugar.
 5. False: Whether you lose or gain weight comes down to this formula: Calories in - Calories Out = Weight Loss (or Gain).

1. Zelman, Kathleen M. *What's Your Nutrition IQ.* webmd.com. 2018.