Volume 2 | Issue 3
February 2017

NYS-ACCP Insider

St. John's University College of Pharmacy and Health Sciences

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SJU SCCP Student Chapter Synopsis

The St. John's University College of Pharmacy and Health Sciences' student chapter of ACCP was founded in Fall 2013 as one of the first twelve colleges of pharmacy in the country to be recognized by the national organization with a mission to promote and educate our pharmacy students about clinical pharmacy practice. Since then, our organization has grown through patient care projects, service, fundraising events, and clinical skills activities. Today, our student chapter prides itself on a number of events and programs that we have developed over the years. Our first program is the Peer Mentoring Program, which provides a unique opportunity for pharmacy students at all levels to collaborate and develop their research skills. Participants are grouped by similar interests and work on various projects and presentations throughout the year. At the end of our spring semester, groups present their hard work at our annual Peer Mentoring Project Showcase. Our second event is the Sim Man Case Event. The purpose of this event is to promote and practice interdisciplinary professionalism between St. John's University pharmacy and physician assistant (PA) students. This event gives both pharmacy and PA students the opportunity to better understand the importance of the other profession's role on the healthcare team. We are also known for organizing professional speaker events throughout the semester in collaboration with other student organizations and external pharmacy organizations. One of our most successful events is our Organ Donor Awareness Drive and Solid Organ Transplant Panel, a two-part event held in collaboration with PGY-1 and PGY-2 Residents from the New York Presbyterian Hospital. This event educates SJU students about the importance of becoming an organ donor and encouraging students and faculty to sign up to become donors. After the organ drive, the residents speak on a panel about their experiences as residents and offer advice to aspiring students. We have accomplished all of these events as a non-budgeted school organization, with the help of our fundraising committee. Our fundraising chairs over the years have creatively raised funds through bake sales, chapter T-shirt/crewneck and annual white-coat clipboard fundraisers. Moving forward, we hope to continue our work by strengthening and increasing collaborations with other organizations; as well as improving the quality of our existing and new events and programs.

- Ruby Lee, PharmD Candidate 2017 | President, SJU SCCP
- Victoria Hom, PharmD Candidate 2018 | President-Elect, SJU SCCP

Meet our NYS-ACCP Officers

President: Travis Dick, PharmD, BCPS

Travis Dick is the Associate Director of Pharmacy at the University of Rochester Medical Center-Strong Memorial Hospital where he is responsible for Clinical Pharmacy Services. Travis is a Board Certified Pharmacotherapy Specialist that has published peer-reviewed manuscripts and presented at state, national, and international meetings. He is passionate about innovating new clinical services and positioning pharmacists as leaders in patient care and comprehensive drug therapy management. He believes pharmacists should practice at the top of their competence and maximize both pharmacotherapeutic and pharmacoecomonic outcomes.

Prior to his current role, Travis was a clinical pharmacy specialist in solid organ transplantation before advancing into the role of clinical coordinator for the transplant team at Intermountain Medical Center. There he served as site coordinator for the PGY1 Pharmacy Residency Program and as a preceptor for students, PGY1, and PGY2 residents where he advocated for pharmacist accountability in patient care. While there, Travis completed coursework to earn a Master's degree in Business Administration at the University of Utah. Prior to that, Travis completed both PGY1 and PGY2 residencies at Duke University Hospital where he specialized in Solid Organ Transplantation after he graduated from the Doctor of Pharmacy program at the University of North Carolina—Chapel Hill. Travis earned a Bachelor's degree in Biochemistry with a minor in Communication from the University of New Mexico before entering the pharmacy field.

President-Elect: William Eggleston, PharmD, DABAT

William (Willie) Eggleston is a Clinical Toxicologist at the Upstate New York Poison Center and an Assistant Professor at SUNY Upstate Medical University in the Department of Emergency Medicine in Syracuse, New York. He earned his PharmD from the Wilkes University Nesbitt College of Pharmacy and completed a two-year fellowship in Clinical Toxicology and Emergency Medicine at SUNY Upstate Medical University and the Upstate New York Poison Center. He is an avid triathlete, perpetual optimist, and connoisseur of fine chocolate milks. He will be starting as an assistant professor with the Binghamton University School of Pharmacy and Pharmaceutical Sciences in the fall.

Secretary/Treasurer: Amanda RM Winans, PharmD, BCPS, CACP

Amanda McFee Winans earned her PharmD in 2007, graduating from Albany College of Pharmacy. She completed a postgraduate Pharmacy Practice Residency with an emphasis in Pain and Palliative Care at Bassett Medical Center in Cooperstown, New York. Dr. Winans currently serves as the primary pharmacist clinician of the outreach Anticoagulation Management Service at Bassett Healthcare, caring for cardiology and cancer patients alike. She continues to support the pain and palliative care practice at Bassett Medical Center through the Pain Management Committee and related quality improvement initiatives. Dr. Winans holds adjunct faculty appointments with multiple Colleges of Pharmacy and holds Clinical Faculty appointment in Pharmacology at Columbia University College of Physicians and Surgeons. She has authored and contributed to numerous peer-reviewed manuscripts related to anticoagulation, and pain and symptom management. Dr. Winans currently serves as Secretary/Treasurer of the New York State Chapter of the American College of Clinical Pharmacy (ACCP).

Technology Director/Website Administrator: Roberta Schnur, RPh

Roberta Schnur grew up on a farm in central New Jersey, went to public schools in the then rural local area, and received a BS degree from Rutgers University College of Pharmacy in 1961. She practiced as a pharmacist for more than 15 years in community, manufacturing, hospital, and insurance adjudication settings, and spent more than 35 years working with computers as a systems analyst, designer and developer. She returned to practice in 2008 and currently serves the healthcare provider community through the World Professional Association for Transgender Health. Roberta is Communications Officer and Website Administrator for the New York State Chapter of the American College of Clinical Pharmacy, a member of the national ACCP, and is active in the New York City Medical Reserve Corps and New York City Radiological Reserve Corps.

Past-President: Kate P. Cabral, PharmD, BCPS, CACP

Kate Cabral earned her Doctor of Pharmacy degree from Northeastern University in Boston, Massachusetts in 2004. She completed a Pharmacy Practice Residency, as well as a Cardiology Specialty Residency, at Boston Medical Center. She then practiced as a Clinical Pharmacy Specialist in cardiology/anticoagulation at Boston Medical Center and Maine Medical Center, for which she was responsible for developing and implementing inpatient anticoagulation services. Dr. Cabral is a board-certified pharmacotherapy specialist. Currently, she is an Assistant Professor of Pharmacy Practice at Albany College of Pharmacy and Health Sciences in Albany, NY. Dr. Cabral currently maintains a clinical practice with the cardiology services at Albany Medical Center and her didactic responsibilities at ACPHS include cardiovascular and antithrombotic topics. Dr. Cabral has authored several articles on anticoagulant-related topics and has served as an invited speaker nationally, including at ACCP Annual Meetings, on optimizing anticoagulant therapy in acute coronary syndromes and in the prevention and treatment of venous thromboembolism. She also serves as co-advisor to the Student Chapter of ACCP at Albany College of Pharmacy and Health Sciences.

The Future of the Affordable Care Act and What It Means for Pharmacists

Following his inauguration, Donald Trump signed an executive order that allows federal agencies to dismantle parts of the Affordable Care Act (ACA) that are deemed unnecessary. The executive order, which was written in a broad manner, targets the expansion of Medicaid, tax penalties for the uninsured, and tax subsidized premiums.[1] The new administration plans to repeal the ACA but with no healthcare law prepared to replace it, there will be significant changes for both patients and healthcare providers.

The ACA, which expanded medical and prescription drug coverage, has brought down rates of uninsured patients from 57 to 26 million according to the Congressional Budget Office (CBO).[1] The ACA not only serves to provide healthcare coverage to a more diverse population but also reimburses healthcare professionals such as pharmacists for their services through Accountable Care Organizations and through payment delivery models implemented by the Centers for Medicare and Medicaid Services (CMS) Innovation Center. Through the expansion of the 340B program, more facilities such as critical access hospitals can save on drug costs and reallocate these savings to fund additional services for patients.[2]

If the ACA is repealed, pharmacists may see a regression in their responsibilities. As reimbursement to hospitals become delayed or nonexistent, pharmacists may place less emphasis on services that will no longer have financial incentives, such as Medication Therapy Management, which encompasses a broader subset of clinical services. In addition, prescription coverage provided by the ACA, although beneficial for patients, stopped certain manufacturers from releasing assistance programs without guarantee that these programs will return.[3] With decreased health and prescription drug coverage for patients, pharmacists may end up seeing a decline in their overall patient population. Despite all this, motions such as the reintroduction of the provider status legislation and talks by the CMS to expand the pharmacists' scope of practice reaffirms that the state of the profession is constantly changing and that the fight to increase the role of the pharmacist continues to be an uphill battle.

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- Jimmy Seo, PharmD Candidate 2018

Clinical Spotlight: Joshua Rickard, PharmD

Ambulatory Care Pharmacist, Queens Hospital Center
Assistant Clinical Professor, St. John's University

Dr. Rickard received his PharmD at the University of South Carolina in 2014, then went on to complete his PGY-1 residency training at James J. Peters VA Medical Center in the Bronx, NY. He then pursued his PGY-2 residency training at Intermountain Healthcare in Salt Lake City, UT. When is he not precepting his students, he works closely with the St. John's University student chapter of ACCP by preparing and proctoring participants for the ACCP Clinical Research Challenge.

How has ACCP developed you as a professional and what is the most valuable lesson you have learned so far during your time in ACCP?

My school unfortunately did not have a chapter when I was a student so I didn't join ACCP until residency. I was introduced to ACCP in my second year of residency where my first experiences were going to an annual meeting. I noticed it was a much smaller environment than ASHP, which I liked. You can get to know a lot of people whether it be within the country or even across the states. I met a lot of great people and clicked instantly with many. I joined the Ambulatory Care PRN. I have also helped with planning events at national meetings. Our ACCP PRN meets during ASHP-Midyear. So in Las Vegas, I set up a meeting with ACCP and PRN members. By doing that, because it is a lot smaller, I was able to make connections with a lot of people both in and out of the country. What I learned is that pharmacy really is a small world and once you get all these interconnections in ACCP, you will definitely learn that.

What advice do you have for current pharmacy students on being active in ACCP? What advice would you give to a student who is considering following in your footsteps?

I think the biggest advice I would give a pharmacy student wanting to get involved with ACCP is to just do it. It is always scary to jump in. I didn't even know as a resident what I was getting into, but I soon realized that it is really easy to get involved. For example, with my team, we meet 1-2 times a year and I help coordinate events. To pharmacy students wanting to follow in my footsteps, I would say to just join now and begin to attend meetings. Learn about the organization, what the organization can do for you and how you can help. Just choose any part of the organization that resonates with you. I like planning events and official gatherings so I knew the networking committee would be the place for me. You can find anything within an organization that would work best for you.

How has your experiences across three different states (South Carolina, New York, Utah) shaped your perspective on pharmacy practice?

It is very different everywhere you go. Coming from SC, which is progressive with regards to pharmacy, really taught me the importance of a well-trained pharmacist in the progressive areas. Coming from Ohio, SC, Utah where diversity is very limited, moving to NY taught me so much more. For example, in my research project in Utah, my patient population was 97% Caucasian so moving to NY where I practiced during my PGY-1 at the Bronx VA, there was a lot of different ethnicities. I learned that people eat tortillas and rice for breakfast? That was culturally eye-opening for me because there is a lot more out there that you will have to continue to learn. The patients you cross along your journey are not going to be like you. The demographics across the states are very diverse. In Utah, I could prescribe and didn't have to wait for the doctor. All-in-all, it just taught me to be a really independent clinician. Also, working in different states gave me the opportunity to meet professionals all over the states which makes it easier collaborate on projects.

What do you think are the greatest challenge in the growth of the pharmacy profession today and what insights do you have on how to approach such issues?

I would say that there are a lot of laws limiting the progression of pharmacists from practicing to the top of their license. I think other states have provided really good models such as Washington and California. From the ambulatory care area, those states have led leaps and bounds compared to other states in regards to allowing pharmacists to do things you can't do in other states – like prescribing medications. If we in NY can learn to adopt the protocols and laws from these model states - that would really further the pharmacy practice. And advocacy is a big thing, no matter what organization you're in, there is always advocacy to make sure that we really get our practice out there.

What are some interesting projects that you are currently working on?

I'm working on this really cool project with another faculty member in Public Health and her student and a pharmacy student on a mobile game to help educate patients' families on helping them manage their diabetes. It's going to be similar to a Candy Crush-type game where a random fact about a medication will pop up.

- Victoria Hom, PharmD Candidate 2018 • Saima Abedin, PharmD Candidate 2019
Ashley Leung, PharmD Candidate 2021

Type 1 Diabetes Vaccine

About 1.25 million Americans live with type 1 diabetes and about 40,000 are diagnosed every year.[1] The body of a person with type 1 diabetes does not produce insulin due to the production of pancreas destroying T-cells, which attack the pancreatic islets. As a result, without the production of insulin by the islets, diabetic patients' blood sugar levels rise to eventually harm organs like their eyes and heart.

The Bacillus Calmette-Guerin (BCG) vaccine, which was traditionally used to develop immunity against tuberculosis, could possibly serve as a drug to cure type 1 diabetes. In the FDA approved Phase I human clinical trial, 130 people with advanced type 1 diabetes were administered the BCG vaccine and were injected twice within a four-week time frame.[2] The vaccine worked by temporarily elevated the levels of Tumor Necrosis Factor (TNF). The elevated levels of TNF targeted the T-cells for destruction and allowed the temporary production of insulin by the pancreatic islets. The effectiveness of the treatment was confirmed and there were no severe side effects, with patients only observing mild inflammation at the site of injection.[3]

In the second upcoming trial, as announced at the 75th Scientific Sessions of the American Diabetes Association, patients between the ages of 18 and 60 will be injected with the vaccine twice in a period of four weeks, and then once a year for four years.[2] It will focus on creating a therapy for type 1 diabetes that can demonstrate sustained effects.

The BCG vaccine has been present in the market for about 100 years. Currently, people with diagnosed type 1 diabetes incur average medical expenditures of about $13,700 per year.[4] Thus, if an optimal therapy for reversing type 1 diabetes is established, it will be a game changer both medically and financially.

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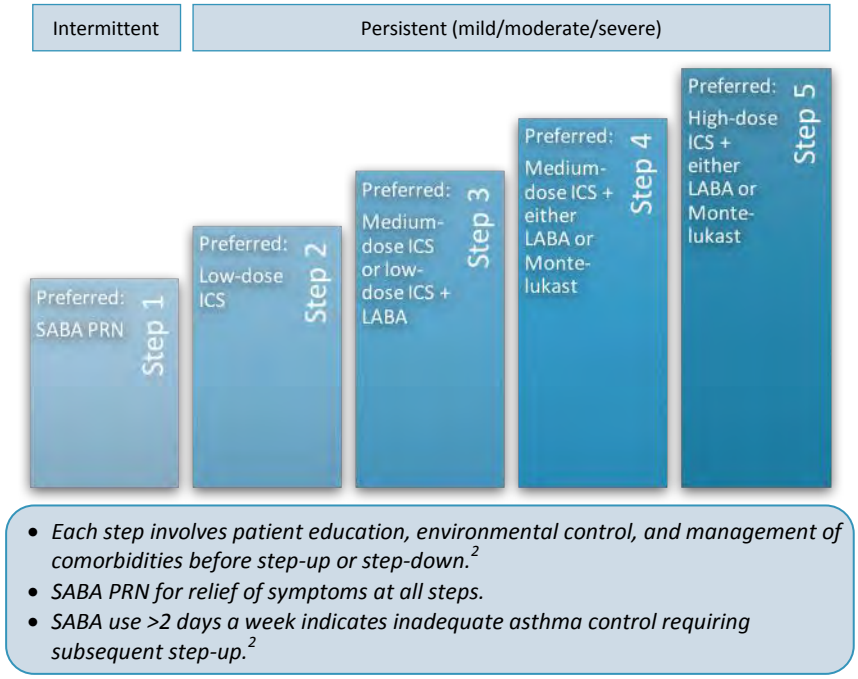
- Namosha Mohite, PharmD Candidate 2021

Clinical Pearl: Asthma Management

Asthma is a unique chronic condition where patient involvement is paramount. To achieve the best outcomes, patients must acknowledge the importance of their role in managing their condition and develop rapport with their providers. In fact, studies have shown that proper patient education reduces asthma-related healthcare costs and improves asthma control.[1] Patients should be taught how to monitor their day-to-day symptoms as well as identify triggers that exacerbate their asthma. More importantly, patients should be able to demonstrate proper inhaler technique and distinguish between various types of asthma medications, if they require multiple. Being a condition where physician office and pharmacy visits may be frequent, healthcare providers should intervene when necessary to provide proper education and counseling.

Monitoring symptoms during every patient visit is extremely crucial in asthmatics. This can be done as frequently as every one to six months and should assess patients' asthma control.[2] As a benchmark, well-controlled asthma is defined as daytime symptoms no more than twice weekly, nighttime symptoms no more than twice monthly, short-acting β2-agonist (SABA) use no more than three times weekly, and no interference in normal daily activities.[2] Urgent care visits and corticosteroid use should be limited to once a year as well.[2]

Drug therapy for asthma is dictated by the severity of the condition which includes three aspects: symptom control, current level of lung function, and number of exacerbations requiring oral corticosteroid use within the past year.[2] Following this, asthma can be classified into intermittent or persistent (persistent further being broken down into mild, moderate, or severe).[2] Treatment of asthma involves a stepwise approach by increasing or decreasing medications until symptom control and reduction of drug related side effects.[2]



Intermittent asthma or Step 1 is treated with SABAs as needed for relief of symptoms.[2] For reference, the most commonly seen SABA is albuterol. Mild persistent asthma or Step 2 is treated first-line with long-term controller medications, preferably a low-dose inhaled corticosteroid (ICS).[2] The benefits of inhaled corticosteroid use include the reduction of symptom frequency, improvement in quality of life, as well as a reduction in the risk of future exacerbations.[2] This is important because it may reduce patients' need to rely on their SABA. Moderate persistent asthma or Step 3 is treated first-line with a low-dose inhaled corticosteroid along with a long-acting β2-agonist (LABA) or a medium-dose inhaled corticosteroid alone.[2] Lastly, severe persistent asthma or Step 4 or 5 is treated first-line with a medium or high-dose inhaled corticosteroid along with a LABA.[2] Providers may also favor adding on a leukotriene modifier such as Montelukast (triple-controller therapy) to better achieve symptom control.[2] In all forms of persistent asthma, as needed SABA use is continued.

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- Jack (Hongkai) Bao, PharmD Candidate 2018

New Drug Update: Zinplava™

The FDA approved Merck's Zinplava™ (bezlotoxumab), a human monoclonal antibody indicated to reduce the recurrence of *clostridium difficile* infection (CDI).[1]

CDI is an intestinal infection caused by toxin-producing bacteria and is associated with diarrhea, abdominal pain, colon damage, and fever. Zinplava™ is indicated to decrease the high risk of CDI recurrence in patients 18 years or older currently taking antibiotics for CDI. Zinplava™ is not an antibiotic and is not indicated for CDI. It should only be used concurrently with antibacterial treatment of CDI. Zinplava™ neutralizes the effects of CDI, by binding to CDI toxin B with an equilibrium dissociation constant (Kd) of $< 1x10^{-9}$.[2]

The FDA approved Zinplava™ based on its evidence of safety and efficacy in two Phase 3 clinical trials. The trials were randomized, double-blind, placebo-controlled, and multicenter. A total of 1554 patients with CDI participated in the trials. In each trial, participants were randomly assigned to receive Zinplava™ infusion or normal saline infusion in conjunction with SoC (Standard of Care) antibacterial drugs for CDI: metronidazole, vancomycin, or fidamoxin. Efficacy was evaluated based on whether or not the patients presented with CDI recurrence, defined as a new episode of diarrhea with a positive stool test for *clostridium difficile* after clinical cure of the presenting CDI.[3] Patients were evaluated for 3 months in each trial. The results of patients with high risk for CDI recurrence, such as patients over 65, were consistent in both trials. The clinical cure rate of patients who received Zinplava™ was lower in

comparison to patients who received the placebo in Trial 1. In trial 2, the clinical cure rate of patients who received Zinplava™ was higher in comparison to patients who received the placebo. The most common adverse reactions observed were nausea, pyrexia, and headache.[2]

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- Shireen Farzadeh, PharmD Candidate 2019
Catherine Cawley, PharmD Candidate 2018

The Right Over EpiPen®

Created originally for the military in the 1970's by biomechanical engineer Sheldon Kaplan, the ComboPen was soon to be approved by the FDA in 1987, only to be renamed EpiPen®.[1] Although originally acquired by Meridian Medical Technologies, it was passed on in 2007 to generic business Mylan Pharmaceuticals, which currently dictates how the drug is sold and marketed.[1] At its beginning, the drug made about $200 million per year. Currently, it makes more than $1.1 billion per year.[1] Interestingly enough, Mylan even holds 90% of the market share for epinephrine devices.[1] Now, many are speaking out about the increase in price of over 500% since 2007 for a two-pack of auto-injectors. This 500% increase translates to an overwhelming skyrocket in price from $93.88 to $608.61.[1] Member of the US House of Representatives Elijah Cummings D-Md. directly acclaimed, "In Mylan's case, they had a virtual monopoly over the market, and they took advantage of it. They use the simple but corrupt business model that other drug companies have repeatedly used: find an older, cheap drug that has virtually no competition, and then raise the price over and over and over again."[2]

In an attempt to stymie the backlash against their product, Mylan agreed to offer a generic version of their EpiPen® that made its debut in December 2016.[3] This option would still cost a staggering $300, a costly amount for a lifesaving medication.[3] Then, in early January 2017, it was incorrectly reported by some that CVS would slash the price of a generic form of EpiPen®.[4] Only costing about $100 for a two-pack, a seemingly affordable option had finally hit the market.[4] Unfortunately, while it is true that Impax Laboratories' generic epinephrine auto-injector does contain the same medication and basically works the same way, due to the FDA's rating system the two products cannot be substituted by a pharmacist.[5] Their generic is a true generic (meaning pharmacists may substitute the products) of Adrenaclick®, a very similar, but still not equivalent epinephrine auto-injector. The only true generic to the EpiPen® remains Mylan's product, a product not all doctors are aware of when writing prescriptions for their patients. For now, the best way patients can receive the most affordable option is to request that their doctor specifically write for an "epinephrine auto-injector."[5]

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- Michael Kelcz, PharmD Candidate 2018 • Olivia Krakowski, PharmD Candidate 2022

Shining a Light on Hepatitis C

Hepatitis C is a serious liver disease caused by the hepatitis C RNA virus (HCV) which may require referral to hepatologists and other specialized physicians. There is now hope of curing all hepatitis C patients unless they become re-infected. With new all-oral treatment options now available, hepatitis C patients have more chance than ever of getting cured, and preventing complications such as advanced liver disease and hepatocellular carcinoma.[1]

Methods of transmission of the hepatitis C virus include blood transfusions, organ transplants, sharing needles, body piercings or tattoos done in informal facilities, and rarely sexual transmission and childbirth. Symptoms may be a sign of advanced liver disease, including jaundice, fever, dark urine, gray-colored stools and/or loss of appetite.[1] Over time, chronic hepatitis C can lead to liver damage and fibrosis, cirrhosis, liver failure, or hepatocellular carcinoma.[2] The longer the patient lives with HCV undiagnosed and untreated, the more likely they are to develop fatal liver disease.[1]

AASLD guidelines recommend all patients with HCV should receive treatment unless they have short life expectancy. There are six genotypes of HCV, with subtypes in each class. Patients should be genotype-tested before starting hepatitis C medications. For some drugs, such as Zepatier™, insurance companies may require NS5A resistance testing. Regimens are customized according to patients' genotype and drug resistance. For example, for genotype 1A treatment-naïve patients without cirrhosis, daily Zepatier™, Harvoni®, Viekira Pak® with weight-based ribavirin, Olysio® plus Sovaldi®, Epclusa®, or Daklinza™ plus Sovaldi® for 12 weeks is recommended. Patients with cirrhosis need to be assessed for decompensated cirrhosis, or moderate or severe hepatic impairment (class B or C Child-Turcotte-Pugh score) before being prescribed treatment. Weight-based ribavirin is added on for decompensated cirrhosis. Treatments no longer recommended include PEG-IFN, monotherapy with PEG-IFN, ribavirin or a direct-acting antiviral, treatment with ribavirin of pregnant women or females unable to take contraception, or pre-exposure or post-exposure antiviral prophylaxis.[3]

There is no vaccine available for hepatitis C, and no way of knowing if a patient is infected other than blood testing. The CDC recommends screening baby boomer patients, born 1945-1965, for the hepatitis C virus. Patients who have had HCV must be educated to never donate blood, lest their virus ever reactivates and infects other people. These patients will always test positive for the hepatitis C antibody test. They must refrain from any alcohol use, because alcohol can increase the rate of liver damage.[1] Pharmacists, aside from looking for drug interactions, play a vital role in ensuring patients are informed and adherent to their hepatitis C regimens.

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- Tania Naeem, PharmD Candidate 2017